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## MILITARY MEDICINE

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## The "Nestling" Military Patient\*

By

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LONG experience with a certain group of military patients who are typified by either extended or repeated periods of hospitalization has finally brought us sharply to the realization that we are dealing with a true military medical identity for which we have chosen the title, "The 'Nestling' Military Patient."

Most physicians with military experience have long been aware that soldiers hospitalized too quickly or for trivial reasons develop "the hospital habit."<sup>1</sup> This occurs frequently in those cases of functional disorders or somatization where the failure to recognize the meaning of such reactions leads to costly and dangerous practices of excessive examinations, repeated unnecessary diagnostic tests, and excessive treatment and long hospitalizations including unwarranted periods of alleged convalescent leave.<sup>1</sup>

During World War II studies by such authors as W. C. Menninger<sup>2</sup> have repeatedly pointed out the high incidence of purely functional disorders which are frequently found on the various wards in military hospitals. In one study of a general

hospital, 24% of patients on cardiovascular wards and 20% of patients on gastro-intestinal wards demonstrated purely functional disorders. In smaller military hospitals the percentage was often much higher. This was especially so where the military physicians were not oriented or schooled in the proper techniques of handling the hospitalization of such patients.<sup>3</sup>

Recent experiences in military hospitals both in the Far East and the Zone of Interior not only include the recognition and treatment of the functional disorders described above but also reveal with regularity the individual we have named the "nestling" military patient. He is one who demonstrates upon investigation and physical examination just that sufficient degree of physical or emotional disturbance that the military physician is easily induced to hospitalize him for study and treatment. In most civilian hospitals many such individuals ordinarily might be reviewed and treated on an outpatient basis or if necessary be kept hospitalized for only that period of time to accomplish necessary diagnostic procedures, final evaluation, and treatment prior to an expected early return to activity and to one's occupation.

We are impressed by the one outstanding fact concerning these "nestling" military patients, which when their physical or emotional disturbances are *properly* evaluated, it becomes evident that they are *not really sick enough to be in a hospital, nor do they demonstrate that degree of emotional fitness*

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*needed to render valuable uninterrupted service to the military.* Nevertheless, despite these defects, by various means these individuals continue to flourish in the service or once having left it, worm their way back again.

Then when disagreeable stress appears, such as responsibility excessive in their eyes or a comfortable existence is threatened, their mild disabilities which previously may have not bothered them or were disregarded, become highly magnified and worthy of exploitation. When faced by stresses not to their liking or an environment not of their own choice, they frequently hide behind a cloak of physical distress. It is at this time that they give such convincing accounts of disabling vague aches, pains and discomforts that the unsuspecting physician will find himself hospitalizing them for complete study often in search of obscure, undetermined and even rare diseases of many kinds. These accounts include almost every conceivable symptom but more commonly are expressed by pains in the head, chest, abdomen, back, and extremities, unexplained vomiting and weaknesses, fatigue, lassitude, and impaired effectiveness directly due to physical impairment leading to difficulties in concentration and thinking. If all such symptoms of these patients were analyzed and categorized, the entire gamut of clinical symptoms would have to be recited.

Under these circumstances, when they are first admitted to the hospital taking either conscious or unconscious refuge behind their physical complaints, they will often appear so acutely ill that the physician must perforce admit them immediately. Ordinarily their physical state will be so genuinely disturbed or the verbalization of their illness so alarming that the physician who may be pondering in his mind the actual need of hospitalization, finally accepts the individuals' distress as real and admits them.

Once such an individual has either insidiously or in an unconscious defensive reaction to underlying internal or external conflict, caused the physician to hospitalize him, then he is well on his way toward becoming

the "nestling" patient. Gradually he begins to build and feather for himself a veritable nest in which the longer he remains hospitalized the more he will cling to the passively secure hospital existence and the more he postpones returning to his former responsibilities and facing unwelcome conflicts in reality. So adept are these "nestlers" in achieving this goal of hospitalization which really then rapidly decreases their value as available servicemen, that it is frequently only in retrospect that the physician realizes that he has taken the wrong road for curing his patient. By then, it is often too late to recover the patient from his bed of invalidism. For once the individual enjoys the relatively secure, easy going, permissive hospital existence, he will embrace it tenaciously or if released, will forever yearn to return again and again to that parasitical existence which requires no labor of his own and keeps him from the cold realities of personal frustration or unacceptable military assignments.

While it is true that many military physicians and hospital commanders have come to recognize these individuals and deal with them successfully and prevent their long or repeated hospitalizations, it is still believed essential to identify these patients as completely as possible not only to orient those physicians who are newcomers in military medicine but to make all physicians, civilian and military, aware of the almost magical artistry which these individuals can and do use openly or covertly to deceive not only their physicians but even themselves. Here one really learns about the truism of the adage, "He who tells his story well enough and long enough convinces not only others but himself," no matter how fantastic or untrue his story may have been.

When first hospitalized, the patient appears genuinely ill and gravely concerned over his physical distress. He cooperates to the nth degree in relating the history of his illness and with the most serious mien begs only "to get completely well so that he can return to his duties, whatever they may be." In fact he may demur the fact that he must remain in the hospital. Invariably and often almost

pathognomically, shortly after admission, he will state he prefers a brief hospitalization and even apologizes for his need to be hospitalized—all he needs is a "checkup and a little treatment." Nevertheless, beneath this seeming sincere facade there is no real motivation stirred by this expression of an early wish to return to duty.

Nothing is at first revealed concerning disturbing reality demands or personal conflict with others. In fact, the physician himself at that point is so truly concerned over the physical health of his patient, that he does not dare disturb his patient with relatively unimportant questions concerning his military, marital or social situations. Who would dare to ask a truly seriously ill patient from whatever cause about his personal problems or military status if he appears at just that moment to be combating his illness with all his available energies?

Gradually while he is being studied and treated symptomatically in all earnestness by his physician, the patient does improve objectively. Nevertheless, for unrecognized reasons there remains a core of physical defects or complaints that serve to encourage the individuals' retention in the hospital. As each complaint is investigated and removed, their stay is prolonged by this residue of minor organic or functional complaints which they exploit to the maximum. Each time that duty seems imminent, they readily produce from their veritable magician's hat a long standing complaint which for some reason they had disregarded or not thought of as important or which had just developed and always requires the conscientious physician to persist in his honest efforts to find serious organic disease as the basis for such genuine complaints.

Frequently these patients present histories of previous hospitalization for such serious ailments which partially serve to explain their present ailments and complaints that the physician is impelled to delay their final disposition until he can obtain such records rather than rely on his own diagnostic acumen. These records sometimes take such inordinate length of time to arrive that the

patients' "nestling" foundation becomes more tenaciously viscid. One such individual, aged 47, admitted for alleged vomiting and loss of weight, presented such a history concerning previous hospitalization for grave gastrointestinal disturbances that his physician kept him hospitalized over three months waiting for his records to arrive. On physical examination he demonstrated no serious organic findings. Even though his weight was adequate and he appeared clinically sound, he continued to complain of vomiting and loss of weight. Meanwhile, he enjoyed his hospital stay immensely, participating in all ward activities—an indication that nothing serious was really wrong. When his records did arrive, they were numerous and bulky but demonstrated nothing beyond minor gastrointestinal distress similar to what he complained of during his present hospitalization. Basically he was an inadequate individual who resorted to physical illness which he could summon almost at will like a conjurer whenever external stress threatened his comforts. During interviews he would become hoarse almost to the point of aphonia and just whisper his persistent complaints. Yet when he talked with other patients and felt no medical scrutiny upon him, he demonstrated no vocal impairment. In fact, when he was unmindful of his surroundings, he was often the sparkling wit in his group of fellow patients. His past history revealed that when he was placed in unacceptable military assignments, especially overseas, he utilized his gastrointestinal artistry time and again to be relieved of military obligations undesired by him. He had been returned medically from overseas twice before and been hospitalized at least five times for similar reactions in other unhappy situations.

He talked constantly of his great value to the service and his great accomplishments, but in reality he had only filled positions which required little initiative or responsibility on his part. His ability to regurgitate and emit on these undesirable occasions seemed truly a voluntary utilization of reflexive acts.

The typical "nestling" military patient soon openly begins to enjoy the easy going,

permissive existence afforded him on the hospital ward. Unlike the habitual shirker or the psychopath who under hospital conditions still cannot control themselves because of their hostility—engendering personalities, the "nestling" military patient possesses a "savior-faire" which accomplishes his purpose of remaining hospitalized and avoiding undesired obligations without arousing overt negative or hostile feelings toward himself.

More commonly, if not disturbed, the "nestling" military patient will be affable, agreeable and cooperative. His manner may initially be so charming that he easily arouses positive feelings in everyone around him, including his physician, nurses and other ward personnel on the ward. He is ordinarily never demanding, except in relation to finding out more about his illness. Once recovered from his acute disturbance, he goes about his daily activities unobtrusively without attracting attention and relatively unattended. Days may pass without his asking for aid. Frequently he enjoys such splendid relationships with hospital personnel that he is given minor errands and chores to do. In this way his absence during ward rounds is not considered to be a source of concern for anyone taking care of him. Often, nonprofessional hospital personnel to whom he will gladly relate his multitude of physical ailments express true amazement over his ability to endure his "affliction" with such good spirit. As demonstrated by the patient mentioned above, when they are not under direct surveillance of their physicians or nurses, they will usually behave normally and even assume a leadership role among other patients. At times they are the "life of the party" when no authoritative people are in attendance to question their behavior which belies any evidence of real or serious disease. Too frequently he can enterprisingly enlist the aid of doctors (not always his own), nurses, even commanding officers to be accorded special privileges and long periods of alleged convalescent leave which again delay his final departure from the hospital.

The unobtrusive, retiring and usually uncomplaining attitude that this type patient

most regularly adopts often leads the military physician either consciously or unconsciously into procrastination over taking final action either in the full evaluation of his patient or in his disposition. This procrastination, the patient encourages by his quiet unavailability, associated with a compliant attitude which he displays regularly to hospital personnel. They never complain about their hospital treatment as long as they are not threatened with discharge. One such patient was so unobtrusive and retiring that the medical officer found it easy to overlook his presence in the hospital, frequently because "it was almost as though he wasn't there." If noticed, they will do anything the doctor desires, except, of course, go readily to duty. They will spend hours in bed or they will undergo willingly as many tests and even surgical procedures regardless of their nature or how physically painful they may be. Anything to please the doctor—anything that will delay their readiness for duty.

Frequently they are given so much free time of their own, both in and out of the hospital, that some of them have actually established outside activities and businesses which bring them personal financial gain. One such individual who spent most of his days outside a large Army hospital admitted later that he had maintained business connections within the city. Another individual made wallets and pocketbooks in occupational therapy and sold them outside—all during the time that he felt unable to use his hands and his back because of minimal osteoarthritis which he claimed crippled him. Not only is the physician truly seduced by the earnest and superficially friendly attachment that this patient demonstrates to all, but in addition the military physician is often so busy with his many regular duties that he finds himself giving more attention to the truly seriously ill or to other "squeaking door patients" who on every occasion possible remind him of their desire to get out of the hospital. (The squeaking door gets the oil.) These more properly motivated patients revealing a restlessness and impatience over being kept in the hospital, frequently seek to

be sent to duty before they are actually well. This is well illustrated by an aggressive pilot who developed a spontaneous pneumothorax. Within two days after hospitalization he was earnestly requesting that he be allowed to return to duty even if he might not be flying. The "nestling" patient, however, rarely expresses such spontaneous interest in returning to duty especially if this duty is in an overseas area or relatively near a combat zone. As long as he is allowed to continue in a state of sheltered, undisturbed, self-gratification, in a controlled hospital situation, he lulls not only himself but everyone else into a state of complacency and "laissez faire." Early in his hospitalization he may safely speak of return to duty since he is sure the physician will at that moment first attempt to uncover the cause of his physical distress and treat him. Later on when the subject of duty is broached to them, they quickly express their verbal acceptance but just as readily insist graciously and diplomatically that certain limitations interfere with their great wish to do so.

They will emphasize that if certain changes take place in their physical condition which will make them completely well or if the stresses that are in the environment to which they must return are removed so that their duties will not be overtaxing and deleterious to their health, they will eagerly accept return to duty. They express such ideas as: If some treatment would rid them of their weakness, or if they could get rid of their pain so they could concentrate on their work, or if perhaps some surgical procedure might be carried out or if climatic conditions were different or even a longer rest in the hospital might do wonders for them—then they nestle all the more. The individual who, for example, had severe gastrointestinal complaints would willingly return to duty (he was in an overseas area) if his wife could be present to cook the types of food that his stomach could tolerate. He was insistent about this even though it was evident that he was eating the regular hospital diet with no evidence of distress and maintained an excellent weight for his structure. No intrinsic pathology

could be found to explain his repetitive pattern of vomiting when placed in any duty status that he would not accept. One may be certain that his reflex ability to regurgitate and vomit almost at will was truly his technique of handling unacceptable conflict and thus controlling his environment.

When the "nestling" military patient's little hospital home is actually threatened by the decision to return him to duty, there is almost immediately a conscious or unconscious exacerbation of previous complaints or the unveiling of new symptoms or minor complaints which previously had not been considered worthy of mention or with which they previously did not want to burden their doctor, so busy was he with patients so much more deserving of attention than they. The symptoms they present are again almost always based upon the presence of minor defects or disturbances which should again ensure the initiation of further investigation by the doctor in order to quell the patient's apparent anxiety. The individual described above would lose his voice and talk of how often he was vomiting after eating. Another would develop head and hand tremors every time he was faced with an interview. This, of course, delayed the disposition of these patients. Another officer, for example, faced with immediate separation from the service if he were physically fit, presented a gamut of symptoms which were carefully studied one by one without revealing any acute disease. Even though psychiatric review indicated that his greatest fear was facing the insecurities of returning to civil life where he could not be assured an income equivalent to his military pay because he had no exceptional civilian experience or skill, and that he really possessed no true psychiatric disturbance beyond his nestling urge to avoid his separation, he returned on one occasion from a three-day pass with X-rays of his abdomen in which some well-meaning physician alleged he saw some abnormalities in the shadows of the patient's right kidney. Despite the absence of any true clinical evidence of genito-urinary disease, perhaps to reassure himself and also to placate the

patient, the physician in charge of this patient arranged for a retrograde pyelogram of the right kidney and ureter—a procedure to which the patient readily subjected himself with the hope that something wrong would be found which would prevent his leaving the hospital. By such repeated tactics, this patient with no real underlying physical disease at any time was able to remain in the hospital for 150 days. Fifty of these days were taken up with three day passes and leaves allegedly given for convalescent reasons. What he was convalescing from was never indicated as based upon physical disease since none was ever found. In actuality this patient was working diligently to force his doctor to place him before a physical evaluation board where he might achieve the fantasized medical retirement and severance pay.

The fact that this "nestling" patient accepted the uncomfortable and not undangerous procedure of a retrograde pyelogram reveals another important facet about the military "nestling" patient. They are not loath to undergo surgical procedures often of major proportion when willing surgeons who are not too alert to the caprices and designs of these patients fall into the trap of believing that surgery will relieve them of their difficulties and ensure their return to duty. The patient who hoped some kidney ailment would be found, had already subjected himself previously to paravertebral injections to relieve himself of chest pain which he claimed was severe. This was done even though the nurses' notes and his daily activities revealed that neither night or day had he required medication for pain. He only complained of pain or weakness during his periodic examinations by his physician. Usually he was seen comfortably passing each day in many activities which belied his emphatic complaints of pain, weakness and inability to function in a duty status. In brief, his motivation for nestling was very apparent when one learns that if he could be found physically disabled in any way, he would not only receive compensation but also severance pay amounting to almost \$10,000. Another patient so impressed his surgeon with a talk

of pain in a trick knee with which he had lived for over 20 years that the surgeon willingly operated on him with less than visible or valid physical findings. The result was that the patient was further hospitalized for three more months with no real improvement, meanwhile remaining in a completely unproductive status. On psychiatric evaluation undertaken because of his failure to improve, the most visible reason for this patient's "nestling" was that he had been in a severe conflict with other members of his Air Police organization and had been unable to make a suitable adjustment in any of his military assignments because of repeated personality clashes. Yet he had returned to the military service primarily because of similar conflict in his civilian life. His failure to adjust in either civilian or military life, he solved by agreeing to surgical invalidism.

When such failure to improve occurs in these "nestling" patients and their vague symptoms persist, the military physician often belatedly seeks psychiatric assistance. This action, the "nestler" may meet with earner feelings of being rejected and even feelings of being insulted by such a gesture. During the initial psychiatric interview, they may remain guarded or even blandly point out affably that such an investigation is not needed. They earnestly reveal that they are truly incapacitated and they strive diligently to impress the psychiatrist with their symptomatology and attempt to lull him into the complacency that their own physician may have demonstrated earlier. One may well believe that at times they may succeed temporarily to get the psychiatrist to indicate that there is no psychiatric disorder to explain their incapacity. However, well-conducted psychiatric investigation usually does reveal that most of these individuals are chronically inadequate or maladjusted persons who are so neurotically entwined in their own severe underlying internal conflicts or so embroiled with interpersonal difficulties that they retreat into a passive hospital existence which frees them from the responsibility of making reality decisions which eventually may, if they realized it, have been better for

them. They are usually burdened with personal inadequacies or unwilling to face or work through familial, marital or social disappointments or they have become severe dependency problems which prevent them from being productive or seeking goals which, though they would require work, would eventually lead them to success and a better personal adjustment. By their accepting a "nestling" state, they literally clip the wings which might have helped them soar to the heights of real success.

Their previous history further reveals that the service offers them monetary rewards which they ordinarily cannot or have not been able to attain in civilian life because of their underlying emotional entanglements or basic inadequacies. In many instances they have returned to military life following a trial period in civilian life in which they have failed usually to achieve even a modicum of success as they face trying competition or they believe that they have been relegated to subordinate positions which they believe are beneath their intellectual capacities or below their self-determined level of prestige and importance. It becomes obvious that their relative unproductivity or personal difficulties would not be readily tolerated in most civilian positions. Civilian industries, businesses, or professional services could not afford to have many such individuals on their payroll and still be efficient.

Yet these "nestling" individuals are too frequently tolerated in the military service which shelters them and gives them pay and allowances regardless of a low level of effectiveness or the complete absence of productivity which is evident when they are kept hospitalized for less than adequate reasons. This curious paradox that failing or inadequate individuals who would find it financially impossible to stay for more than brief periods in civilian hospitals, can be harbored indefinitely and in financial security in military hospitals is a situation which must be brought to light and prevented.

When individuals can solve their inner conflicts and ethical defections<sup>4</sup> through hospitalization for unrealistic incapacities and

the military unawaresly condones this behavior, definite steps must be taken to have both military physicians and commanders deal with this problem expeditiously to keep these "nestling" patients from becoming permanent burdens on the nation. Since no civilian hospital could remain solvent if it tolerated non-paying patients for excessively long times, so too the military hospital should strive to eliminate the "nestling" military patients from its hospitals.

Too many of these individuals are within the age groups in which, if they remain long hospitalized or even in the military service, they may well develop truly serious incapacitating medical conditions which come with advancing age and have really nothing to do with their military service.

In fact, these "nestling" patients do everything in their power as we shall see demonstrated in an illustrative case to be placed before physical evaluation boards. This struggle for medical retirement by such "nestling" patients indeed becomes often not only a struggle on their part but a violent litigious one when these patients hire lawyers who find it possible to concoct highly technical rebuttals to prove their incapacity. If the energies these patients often expend in this struggle to be retired were put to use in being effective and useful to the military service, they would truly be successful individuals. Their struggle to maintain their alleged incapacity when they seek medical retirement is further complicated by the military physician's willingness to give in to the belief that these individuals have made up their minds not to accept rehabilitation. The physician often falls into the trap of describing their failures as medical incapacities and help them unwillingly because the expediency of medical and physical evaluation boards will relieve them of the unhappy burden of such patients. Yet when the background of these "nestling" patients is brought to light, it is surprising how many of them, having failed seriously in civilian life, use a multitude of techniques to return to active duty despite the presence of the same physical defects or disturbances which they later at-

tempt to use, much too successfully it is true, to excuse them from duty or to lead them into medical retirement. As case histories well indicate, "strings are pulled" and certain administrative and political pressures are utilized in persistent efforts until they succeed in worming their way back to active military life. Yet once these "nestlers" achieve their purpose of returning to the military, they find it very easy to succumb to the same physical defects and disturbances which they had so lightly set aside and nullified even by the waivers which assured their return to military duty (see Case II, end of article).

At other times, these "nestlers" if they are assured the gratifications they desire from certain assignments in which they will not be harassed by challenging superiors or in which they will be given their own reins without assuming burdensome responsibility or are not required to use initiative, they will miraculously improve and be well enough to function adequately.

One individual, for example, always achieved hospitalization because of "chronic bronchitis" whenever his military life seemed too arduous or too ungratifying. He found it easy to convince even the best of doctors that his chronic cough, chest pain and weakness were severe enough for them to be concerned about his future health. During one period of hospitalization which relieved him from an assignment which meant living under field conditions, he was able while allegedly very incapacitated by his bronchitis to achieve an advance in certain lodge affiliations. This he accomplished by inveigling frequent passes from his physician which allowed him to attend meetings regularly. On each occasion when duty was imminent, he constantly avoided return to duty by becoming depressed. His bronchitis was always worse at these times. Finally he was hospitalized so long that the field assignment was filled by someone else. It was then necessary to obtain a new assignment for him before he could be sent to duty. As soon as he was acquainted with the fact that his new assignment afforded him choice assignment in the comfortable surroundings of a military

radio station located in the vicinity of a large city, all of his complaints and physical ailments disappeared magically. Very shortly he was so markedly improved that he was begging to be returned to duty. Such changes of symptomatology with a change in motivation for duty are not uncommon when acceptable situations become available to these "nestling" individuals.

In the cases presented at the end of this report, the identifying characteristics of these "nestling" patients are illustrated to demonstrate the manner in which these individuals utilize their minor physical and emotional disturbances to achieve hospitalization and even approach medical retirement. Only such essential data concerning each case which applies to this discussion is presented in order to emphasize the pattern of behavior of these individuals rather than attempt to give exhaustive details about each particular case.

#### TREATMENT

The treatment of the "nestling" military patient involves four factors: (1) The "nestling" patient; (2) his military physician; (3) the military hospital commander; and (4) the policy of the military service to which he belongs.

1. *The "Nestling" Patient.* Despite the fact that many military physicians and hospital commanders have already learned to recognize and deal with these patients and force them to leave their comfortable abodes, they can still be found in many military hospitals ensconced securely behind their minor yet allegedly incapacitating physical and emotional disturbances. Only by forcing them to face the incongruities of their hospitalization can they be made to recognize that they are enjoying an existence which they could not possibly entertain in civilian life not only because of financial reasons but because of the pressures that would come from family or community groups or civilian physicians who would not tolerate their behavior. The ailing, non-effective, non-productive individual in civilian life is more usually quickly pushed aside and given little help. He may at

first receive sympathy and assistance. But as his true nature is revealed, his contemporaries quickly refuse to accept his burdens. Rather than accept responsibility for him, they more readily will say, "If he makes no effort to get well, we can do nothing more for him." In this way, he cannot easily assume the attitude that he displays in his military existence where he implies, as did the officer in Case No. I. "You (the military service) did this to me—you must take care of me. The excessive emotional strain you placed on me has made me ill. Take care of me." He is put on his own as Case II reveals.

The military service may well learn from the civilian attitude toward these non-effectives who must be taught to recognize their own failings and not attempt to displace their anxieties over their own misfortunes onto minor physical or emotional ills. The military must learn to discriminate clearly between those individuals who have truly become ill while performing effectively and those nestling conscious or unconscious contrivers. The differentiation becomes clearer and more decisive when the physician who deals with these individuals learns to evaluate his own attitudes and decisions objectively in the light of the actual physical and emotional findings.

**2. The Military Physician.** As the military physician therefore evaluates the individual not just as a headache, backache or a tremor but as a total personality, he should ask himself seriously, "Why do I allow myself to keep hospitalized this individual who really demonstrates minimal disease or disability in relation to my findings?" If he truly analyzes his reasons, he may find some of the following:

(a.) His medical training may have engraved in him the honest and sincere need to find definite evidence of physical disease for every complaint his patient voices. He cannot fail him. If this need to find something "organic" to explain his patient's difficulties is strong, he may be forced out of a sense of obligation to his patient to examine and re-examine endlessly almost wishfully expecting physical cause to appear. While this need to uncover the organic cause is laudable, it may

prevent him from recognizing that emotional factors and basic inadequacies may be playing a far more important role than is visible (see Case III).

(b.) His need to solve the problem medically by himself may delay obtaining valuable information about the patient from other medical consultants or other sources. This allows the patient to fix his defensive "pseudo-illness" and causes him to lose any remaining motivation to return to effective activity before he succumbs to the inertia of an unwarranted invalidism. If his single-handed search for physical illness goes on too long when nothing more is to be found, it may lead the "nestler" to believe that something must be wrong. He thus finds it easy to persist in hiding behind an unwarranted physical complaint which condones his inadequacies and his failure to resolve his personal problems.

(c.) His inertia over the accomplishment of often tedious and over elaborate administrative "paper work" which is necessary before he can dispose of his patient. This includes the simple recording in charts, narrative summaries for medical and physical evaluation boards, and sundry other administrative details not often utilized as abundantly in civilian medicine. As the physician worries about taking good care of all of his patients and worries about whether he is making the proper disposition of each case, he may delay the "paper work" on especially those "nestlers" who remain so unobtrusively quiet that "they do not seem to be there at all." This procrastination may go on for weeks. Meanwhile, the "nestler" settles deeper and deeper into his hospital nest.

(d.) His unconscious or conscious sympathy and positive feelings for the patient's difficulties. Not infrequently medical officers will sympathize deeply with their patients and their deeper conflicts which may appear due to military life, for at times some physicians themselves feel frustrated. This sympathy of the physician for the patient facilitates his seduction by the patient so that he may truly feel that the military has been cruel to the individual and that, therefore, the pa-

tient is justified in his feelings and his symptomatology. This identification, whether willful or unconscious, may lead him to give the patient excessively long periods of time "to help him adjust" or "to get ready for duty," or to decide if he would be better with a medical discharge. In known cases, such attitudes have led unmindful physicians to condone patients remaining in the hospital for that length of time that will ensure their transfer out of unacceptable situations and even insure their receiving added benefits for longer military service. One physician, for example, actually kept an officer, scheduled for separation, hospitalized with a functional but non-united fracture of his left forefinger because if the officer remained on duty for several more months, he would be allegedly eligible for a higher rank on discharge. While this kindness is noteworthy, it is scarcely to be called practicing good medicine. All in all, this patient with a forefinger showing non-union but not interfering with the functional use of his hand was kept hospitalized for 346 days. During this time, he allegedly underwent two operations on his finger with no change in the end result. Throughout this period, except for the operations, he was constantly outside the hospital taking part in activities which indicated that he very readily could have been maintained on duty for a major part of his actual hospitalization.

(e.) Influences from administrative sources. Oftentimes the physician will allow himself to be unduly influenced by pressure from commanding officers who do not desire the "nestler" to return to duty. The commander may say, "We don't want this man unless he can carry his own load," or "He is useless to us so he must be a psycho or a medical case" (see Case I). Here the physician vacillates over the problem of calling "a spade a spade" and returning ineffectuals to administrative channels for action. This also is influenced by the "duty or hospital" slogan which when carried too far by unit commanders serves only to obstruct the necessary action of the physician and to encourage these "nestlers" to persist in their "nestling" behavior.

(f.) The physician may allow himself to be unduly influenced by consultations that are ambiguous and indecisive and fail to answer the important question of the patient's capacity for duty. In one case (see Case III) each consultation report of which there were many left loopholes and unexplained symptomatology which would lead the physician endlessly to request re-examination sporadically and thus delay his decision concerning his patient. This endless round of consultations from service to service resulted in the patient being hospitalized for 150 days while each physician, though they recognized his basic problem, would fail to be decisive and declare that no physical disease actually existed. In fact, after 150 days of such passing the responsibility for decision from one physician to the other, the patient had such opportunities to rehearse and fix his multitude of physical symptoms that one psychiatrist was tempted to say that the patient was suffering from severe hypochondriasis when in actuality the patient had been working consciously and diligently to establish compensation neurosis (Case III).

(g.) The unwillingness of the physician to place the responsibility of the patient's true difficulties upon his inadequacies and even "ethical defection and the lack of moral responsibility" leads the physician also to condone such failings behind psychoneurotic terminology and avoid the true diagnosis which should be "no disease of serious nature found."<sup>15</sup> This unwillingness or inertia of the physician has been aptly described by A. R. McLean who points out that the physician should not fear to use the diagnosis of "no disease" when such ethical defection exists. This can be done even with the coexistence of minor physical defects or disturbances which do not truly affect the individual's capacity to function and have no true bearing on the individual's stated inability to perform his duties and live up to his military obligations. Surely when the physician in civilian life finds that minor physical or even emotional disturbances have no serious import in the individual's capacity to function,

he does not describe these defects in detail but usually dismisses them and tells his patient that he has "no disease or difficulty which will interfere with his daily activities." In the military somehow the physician has almost been drilled into making a diagnosis no matter how necessary it may be when "no disease of true significance" is the real diagnosis.

The military physician would do well to examine his own motivation for keeping the patient hospitalized and recognize whether his own reasoning is illogical or in error. If he can recognize the true value of giving a diagnosis of "no disease (of a serious nature) found" regardless of the patient's persistent demands for medical aid, he may be gratified to learn that many will accept this decision and even begin to function again.

He would do well to study carefully A. R. McLean's article, "No disease." In essence McLean<sup>4</sup> pointed out that (in civilian life): "In time of peace, individuals who suffered from functional disorder (and we add—minor physical or emotional defects and disturbances such as our 'nestlers' display) were driven by necessity to work and adjust at some level of scholastic, occupational, social and marital adaptation. At no time were they released by society from the responsibility and discipline of meeting the demands of life. *They accepted their relative disabilities as personal problems which they themselves had to solve. They were forced to face the situation, with psychiatric help or without it to assume the obligations of social and economic import.*"

"In military existence, however, tens of thousands of these individuals discovered that their symptoms were sufficient to excuse them from the uncertainties of military life and the dangers of war. There was no penalty for failure, weakness was rewarded and uncounted numbers took conscious or unconscious advantage of this attitude and rendered their disabilities absolute instead of relative."

Everything McLean has said of these maladapted individuals who in war hid their defections behind psychoneurotic tags, is

just as true for these "nestling" patients who utilize their minimal defects to claim absolute incapacity in their military frame of reference which often is just the ordinary exigencies of the military service rather than combat or wartime hardships. These "nestlers" carry on their activities even in peacetime.

He further enlarged on the idea that such disorders as he described were better described as "no disease found, unable to adapt to the military service," believing that it was a disorder of "morale." While he clearly indicated that there were true disorders of the psyche in worthy individuals who tried sincerely to perform their duties and live up to their obligations and therefore were entitled to proper treatment and assistance, he definitely believed that *those "whose illness or disease was a result of selfishness or lack of courage (we add—or basic personal inadequacies), they should be called 'no disease.'*"

The military physician would do well to understand thoroughly what Dr. McLean pointed out: that basic inadequacies and repeated personal conflict with society should not be given unwarranted medical justification for their failures. The physician in charge of a "nestling" military patient should not let himself be lost in the dense forest of the patient's unfounded complaints and move decisively down the path that indicates clearly his defections. In reality this indicates he has "no disease" sufficient to forgive his inability to perform. He must remember that the presence of a defect or even of a neurotic potential is not equivalent to the inability to perform one's duty. The problem is rather one of the personality and not one which deserves a medical excuse. The physician must learn more about persons as well as their bodies. He must use psychiatric and social judgment and prevent such individuals as the "nestler" from using him to supply a medical foundation for his nest of unearned invalidism. As Menninger points out, the physician must understand his own attitudes toward his status in the military service<sup>5</sup> and not let himself be involved in increasing the already large unfortunate medical burden

which warfare brings to the nation with such individuals as the "nestler" whose problems are not primarily their concern. Military psychiatrists too must avoid using scientific psychiatric concepts wrongly to excuse the loss of virtues or motivation and morale<sup>5</sup> in such individuals and to condone their unacceptable failures.

One word of caution must be given to both the physician and the psychiatrist. They must still be aware that even these "nestlers" too may develop serious illness which, if found, should not be disregarded. Then too, certain truly ill individuals may appear superficially like these "nestlers." They must, therefore, exercise careful clinical investigation and reserve their judgment concerning each individual until they are sure of their findings. Whatever they find, they must, of course, take action expeditiously and decisively: to place the "nestler" on his own responsibility and to give the truly sick individual the necessary treatment whether it be medical, surgical or psychiatric.

*3. The Military Hospital Commander.* What can the military hospital commander and his administrative staff do to prevent the extended or repeated hospitalizations of these "nestling" patients? One must assume that the good commander does rely upon his staff of physicians to determine which patients require long hospitalization. He cannot easily know all the patients in the hospital, especially if it is a large one with many different services. Certainly he knows from his own experiences that these patients exist. Yet with the problem of frequently changing professional personnel, it is essential that he set up certain safeguards which will keep him informed of individuals who may tend to become "nestlers" and allow him to take definite action to prevent them from utilizing his hospital as a comfortable channel leading to medical retirement.

He must, therefore, keep constantly before his own mind and before the eyes of his doctors the thesis that we have presented: that many individuals will find their way into military hospitals with defects and dis-

turbances that they claim incapacitate them but which in reality do not render them truly sick enough to be kept hospitalized.

He should facilitate in every way the administrative work which is necessary for the proper disposition of such patients. This includes streamlining of records and consultations and expediting the arrival of other necessary charts and records. Procrastination in preparing and obtaining reports has long served to increase the population of "nestlers."

He should establish a system of reporting all patients hospitalized over a certain short prescribed period of time. Overseas in a 300 bed hospital all patients hospitalized over two weeks were reported to the Chief of Professional Services and hospital commander so that individuals who might be hiding behind the complacency of the unobtrusive "nestler" could be dislodged from their nest and their physicians alerted to their presence.

He must encourage his physicians not to depend solely upon their own individual judgment in these obscure cases but to seek early decisive consultations which answer the questions which are asked. He must insist that the consultant physician give as straightforward an answer as is possible.

He should help his physicians recognize that "no disease found" can be compatible with the presence of non-disabling physical or emotional defects and encourage its use when it clarifies the issue and expedites the proper disposition of each patient.

He should encourage placing as many of these patients as possible after they are medically cleared in an outpatient status where they can carry on their duties despite statements of incapacity. The officer who claimed his finger needed plastic repair just as he was being separated was known to have functioned perfectly well previously in a maintenance job where he used his hands with no complaints. Further, while he was carried as an inpatient for 346 days, except for his periods of surgery, he spent most of his time outdoors, where he was frequently seen repairing the motor of his automobile

with both hands. Yet he was carried in the hospital as an incapacitated patient who was headed for a physical evaluation board because of a non-existent disability. Regular reports concerning this patient would have cut short his hospitalization and encouraged his being given whatever orthopedic physiotherapy he needed as an outpatient while he carried on his duties.

He should further advise administrative action if the "nestler" reveals a lack of motivation or basic inadequacies which make his value to the military questionable.

If the hospital commander takes action along these lines and encourages his doctors to uncover these individuals, he may rest assured that eventually not many "nestling" patients will be found in his hospital.

The commander has one further mission in this problem. If he finds that certain policies of the military service tend to put obstacles in the way of encouraging the return of individuals to duty or in the way of their administrative separation if indicated, he should make certain that command is aware of these difficulties and even suggest action which may solve the situation.

4. *The Military Service.* In modern medicine we are well aware from our experiences with convalescent and rehabilitation programs that whenever a patient's physical status permits it, real activity approaching a normal existence is usually the best treatment for him. The Army-Air Force convalescent-rehabilitation training program of World War II definitely established the fact that even the most physically or emotionally ill servicemen could be restored much earlier to a more normal way of living through the utilization of interesting occupations and activities which stimulated them to become effective and socialized individuals.<sup>6</sup>

Despite these findings, it is still evident in many of our military hospitals today, one of the biggest complaints of many of the patients is the inactivity and boredom that most patients feel as they spend day after day in a non-productive situation while they go through the process of treatment and convalescence. This inactivity spawns a

feeling of inertia in many of these patients so that they may find it difficult to return easily to their former occupations at the end of their hospitalization.<sup>7</sup> One should not be surprised, therefore, that the "nestling" military patient who thrives on the comfortable, non-competitive atmosphere of hospital life can prolong his hospitalization when as Hawley<sup>7</sup> has pointed out, even the truly first-class soldier and officer who becomes acutely ill or disabled tends to retreat from independence and responsibility as part of his illness. These truly effective individuals too possess underlying conflicts and personal difficulties which they handled well but which may flare up during their illness and lead them toward seeking a dependent existence. These individuals, however, are more deeply motivated to recover and resume their responsible and independent roles in life than to remain a medical burden.<sup>6</sup>

Command should, therefore, encourage the wisdom of returning to normal activity as early as possible as many patients as possible who find themselves inactive in military hospitals. When they no longer require intensive hospital treatment, command should go further than the utilization of convalescent and rehabilitation programs. They should consider seriously the development of administrative organizations attached to or placed near large military hospitals in which a large proportion of servicemen who are presently kept hospitalized needlessly can be maintained in an active existence approximating their regular duty assignments or at least stimulating their interests in the direction of returning to a full active military life. It must be definitely recognized that if one visits the wards of a military hospital that there will always be found a fairly sizable number of individuals who could be allowed to remain out of the hospital and treated as outpatients exactly as is done in civilian hospitals. The military in the past has found it necessary to hospitalize many such individuals because they are too distant from their parent organizations or because they are transferred into the detachment of patients because their commanders believe that

they cannot be utilized in a duty status if they are receiving treatment. Most of these individuals would prefer to be active while receiving treatment, rather than sit disinterested in the hospital.

The concept of "full duty or hospital" which is still a prevalent one in the minds of many unit commanders should be recognized as an antiquated one only useful under certain circumstances. Industry, business and even the civilian component of the military service have already realized the value of utilizing handicapped individuals in many positions which belie the concept that an individual in the military must be capable of fitting into any and all situations.

Command has already promulgated policies which provide for the removal of irresponsible, inefficient or inadequate individuals by pertinent regulations. However, the removal of these individuals can only be accomplished if they are identified and proper action facilitated. It would be of inestimable value if command could go further and develop the organizations suggested. Such action could well prevent the present loss of many individuals through excessive hospitalization. When one remembers that in this present era the cost per patient per day in the military hospital approaches \$25 to \$30 per individual and when one remembers that such a hospitalized individual by his absence from duty decreases the productivity and efficiency of the service as a whole, it is believed essential to make changes which keep individuals active and useful. There is no need to hospitalize individuals for any illogical purpose of supporting the fixed costs inherent in maintaining a large military hospital. No going concern can function efficiently if it continues to accept recognizable debits which can be removed. For the military, the patient or individual who could be maintained outside of hospitals and kept productive while he is being treated or evaluated represents such a debit when he is kept hospitalized. This is especially true for the "nestling" patient whom we have found to be neither sick enough to be kept in hospitals nor suitable enough to be supported on active

duty by the military service. Any action which would provide for keeping such individuals in an active status at or near the hospital while he is being studied will soon test his real worth and indicate the course to be taken. Since so many "nestlers" are transferred to large military hospitals from their distant parent organizations, there is at present no way in their hospital situation of evaluating the reality of their total adjustment in the military service. The establishment by command of that organization which would keep many servicemen in an active status when hospitalization is no longer indicated but further evaluation on an outpatient basis is deemed essential, would be a long step in the direction of either causing these individuals to become effective or to expedite their separation administratively rather than through medical channels. Such action has been utilized before both in the Army and Air Force but usually only on a small scale. Such action should be encouraged throughout the total military services.

#### CONCLUSION

It is inevitable that within the vast and complex organization of the military service that certain individuals may enjoy a "drone-like" existence in which they can subsist parasitically on the government which continues to give them pay and allowance despite a lack of productivity. This unfortunate truth should not be accepted by responsible leaders as an unchangeable reason for the development of a sense of inertia or "laissez faire" among their subordinates. Such an attitude of apathy toward the removal of such individuals encourages exactly the problem discussed concerning the "nestling" patient wherein unsuitable individuals have found it possible to avoid military stresses of even normal proportions through the guise of non-valid physical and emotional incapacity. Aggressive action and efficient methods of dealing with these individuals should be employed by the physician, the hospital commander, and the military service. Otherwise, the "nestling" state that always threatens to become permanent serves to

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ensure for unworthy individuals the sinecure state of medical invalidism for which our Government unawares may pay them handsomely over many years even though their own personal, social and military failures were the true reasons for their retreating behind non-valid medical disturbances.

#### SUMMARY

The "nestling" military patient has been presented as a clinical military medical identity typified by extended or repeated periods of hospitalization for physical or emotional defects or disturbances which are actually insufficient to explain the need for such hospitalization. This individual is usually found to be one who is neither sick enough to be kept in a hospital nor is he usually suitable for continuation on active military status. His effectiveness is usually a questionable one depending upon the degree of comfort or lack of competitive military stress that his assignment may contain. When he faces personal or military stresses unacceptable to him, he retreats to his minor physical defects or disturbances and inveigles the unsuspecting physician to hospitalize him. During such hospitalization he is ordinarily affable, cooperative and unobtrusive, but he invariably can delay his return to duty by the use of various measures which include the intensification of his symptoms, the revelation of new physical difficulties and the utilization of a multitude of reasons which prevent his return to duty. Frequently he persuades his physician to place him before physical evaluation boards where he seeks with boundless energy to bring about his medical retirement. Psychiatric studies when undertaken reveal that most of these individuals are basically inadequate or they are persons so neurotically bound with internal emotional conflicts that their social and military relationships are severely impaired. Their prolonged hospitalization serves to ingrain in them a state of chronic invalidism for which they blithely seek to blame the military service. The characteristics of these patients is given in detail in this presenta-

tion—three case histories describe typical "nestlers" of the incipient "nestling" state. Proper treatment of these patients involves not only an understanding of the "nestling" patient himself, but includes decisive action by his physician, the hospital commander, and the military service. In this problem it becomes evident that if the physician, the hospital commander, and the military service recognizes their roles and learn to deal decisively with these individuals, the number of "nestling" patients can be markedly decreased.

The suggestion is made that military command consider the establishment of organizations at or near large military hospitals which will serve to keep many individuals presently hospitalized for insufficient medical causes in an outpatient and actively working situation. The combined efforts of the physician, the hospital commander, and the military command would go far to prevent the loss of useful military personnel through excessive hospitalization and to reduce the number of unworthy individuals who have sought regularly to obtain medical retirement on the flimsiest of physical evidence. Such action taken against the incipient or established "nestling" military patient would eventually reduce the financial burden of the nation by shifting the responsibility for the individual's failure to its proper place: his own basic inadequacies or neurotic entanglements which originally had nothing to do with his military service.

#### CASE I: CHRONIC LONG STANDING PSYCHOGENIC NON-PRODUCTIVITY VERSUS DIABETIC IMPAIRMENT

A 56 year old white divorced officer with 10 years of interrupted service was referred for psychiatric evaluation because of the persistence of headaches, weakness, lassitude, restlessness, insomnia and inability to concentrate on his military activities. During the one year he had been in the Far East, *he had been hospitalized twice for a total of four months.* Physical investigation revealed a "mild diabetes easily controlled by a careful dietary regimen." While on duty involving

engineering maintenance work at an air base, he felt he was not properly placed. Because of previous interest in aeronautics research, he believed he was not able to use his "potential." Information from his superiors, however, revealed such statements as "it was difficult to depend upon him." "He could not be pinned down as to how much responsibility he would accept." "He gave many unsupportable excuses for absences from his office and was never truly efficient or productive."

During his psychiatric review it became apparent that during his entire hospitalization, he had never shown any real disability except in his statements of subjective distress. On his ward he had been quiet, superficially cooperative, and uncomplaining. His room was so nicely arranged with all his books and papers that it looked as though he had set up a permanent office. He went about his own business, took part in ward activities, was given frequent passes by the medical service which at times allowed him to be away for several days. At no time did he express any overt interest or desire to return to his former duties as the Base Maintenance Officer. It became obvious in further interviews, that he was a neurotically-bound individual with many underlying internal emotional conflicts and a severe rigidity of character. He revealed obsessive rumination coupled with marked inflexibility. His daily thoughts were crowded with indecision, insecurity and doubts concerning himself and others. He withdrew from routine which he disliked intensely by indulging himself in highly abstract thinking involving obscure techniques of new psychological warfare. He believed that he had limited ability to stand frustration. He very aptly described himself and his job by saying "I can look wise at the desk, but I can't do it personally." These feelings, however, he desired to blame completely upon a state of mild diabetes which the medical service revealed was "controlled by a restricted dietary regimen, without insulin," and which was in degree "*without impairment of health or vigor and without limitation of activity.*"

It became evident that this individual had no real desire to return to a duty status. In his four months total hospitalization, he had never directed attention to himself. He was observed to be at ease and comfortable in his completely nonresponsible hospitalized state. Days passed without any action by himself or his doctor who procrastinated in arriving at his disposition because "He was a nice old fellow," or "He needed so little help to stay on his diet," or "He had patients who were much more ill."

Gradually, however, even his own physician became aware that this officer had been a psychiatric problem over many years and that his more recent story of mild diabetes played a minor role in his frequent hospitalizations. Gradually, too, his entire story was pieced together revealing that this officer had been hospitalized many times before in military hospitals.

In August 1949 he had been hospitalized in a large Army hospital for several months for similar symptoms (irritability, inability to handle work load, inability to concentrate, insomnia and easy fatigue). In Sept. 1950 he again was hospitalized for several more months during which time he even contrived to be placed before the physical evaluation board where his neurotic character was clearly delineated and he was recommended for return to duty despite his "mild diabetes controlled by diet." This decision he met with a seven page rebuttal which revealed his high intellectual level and his ability to concentrate and focus without undue difficulty on important details which were to assist him in achieving retirement. In this rebuttal, which was in sharp contrast to his stated inability to think or concentrate, he cited in detail outstanding authorities on diabetes to prove that diabetes was an incurable disease. Yet he forgot to include that in this day and age mild and even chronically severe diabetes controlled by insulin is no longer viewed as a crippling disease. It is known definitely that far more seriously affected diabetics than this individual, who learn to abide by a regulated diet and regimen of insulin therapy do become regularly successful in busi-

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ness, professions and even can be truly active in sports. Witness Bill Talbert, the tennis star who lives actively and vividly yet must live strictly in accordance with diabetic requirements. While he demonstrated in his rebuttal his ability to think clearly and cogently, too, he unwittingly revealed his "nestling" tendencies and his great desire to have the military assume all of his burdens. This "nestling" drive is so aptly expressed in his own literary production which follows:

*"At present with very limited physical and emotional strain under hospital conditions, with very strict dietary control and no deviations, I have been able to maintain a stabilized and controlled diabetic state. At the times when I feel tired, no matter what time of the day, I rest. None of my physical activities are strained. As far as emotional pressure is concerned, my sustained hospitalization has permitted the avoidance of same and fostered a completely relaxed existence. The little work I have done has been voluntary, done at my own leisure and at my own good time with no pressure or time element involved. Naturally under these ideal, controlled hospital conditions my vigor has improved, despite adherence to a 1500-calorie diet. However, I am quite certain that were I subjected to every-day full active military duty with good dietary control practically impossible, and the emotional and physical strain involved, my strength, vigor and tolerance would be greatly weakened. The work I have performed as an aeronautical engineer, and in an executive capacity has always involved great responsibility and emotional strain. The two nervous reactions for which I was hospitalized indicate the great pressure to which I was subjected and the fact that my emotional tolerance has apparently been weakened."*

Comment No. 1: This rebuttal describes in no uncertain terms the wish of the "nestling" military patient to "live a completely relaxed existence," "to enjoy sustained hospitalization" which permits "the avoidance of emotional pressures." Where else can one have "ideal controlled (by the patient) hospital conditions" where the "little work that is

done" has been done "voluntarily at his own leisure and at his own good time" except in some military (and, of course, even veterans) hospitals.

This could not ordinarily happen in a civilian hospital in which this individual would have to pay his own way for his own diseases and personality disturbances. For this is what we find to be true—that this individual had long been a disturbed individual even prior to his first military duty.

Continuation of Case History: Prior to his separation from the service in 1946, he had been hospitalized an excessively long time for an "anxiety neurosis" with similar symptoms to those he had more recently. At that time, he again played the "nestler" for almost a year but concurrently with this status, he maintained business activities in the vicinity of the hospital. Prior to coming to his first active duty in World War II he had many personality clashes at a university where he claimed occupying a high position in the department of aeronautical engineering. During this same period he was divorced by his wife. Later after being separated from the military service, he worked with a civilian aircraft company for approximately a year but was released again on his own admission because of repeated disagreements between himself and his superiors. For a short period of time while in civilian status, he was alleged to have been hospitalized in a naval hospital as a veteran because of severe anxiety and the story of having taken an overdose of "sleeping pills." There, however, he was retained only a short period of time—no opportunity to "nestle" was afforded him there.

Comment No. 2: When this individual's complete history is considered, we readily recognize an individual who has been able to spend much of his military service in hospitals because of vague physical complaints. Primarily, behind his ability to inveigle hospitalization, we see a more serious problem: that of an emotionally disturbed individual who at times one may believe reaches psychotic regions, if his total personality structure were fully explored. Yet this

character has been present through the years and is not directly related to a physical disturbance—mild diabetes—which he seeks, at times vigorously to use to obtain complete relief from all his insecurities. Basically we find that his inability to be practical, decisive and productive, his inability to descend from the realms of theoretical abstractions, in which he "putters" and talks of great plans for the future without showing any true achievements, reveals in him a true "obsessive mental obstipation" which constantly loses for him the regard and confidence of associates who cannot comprehend why with his really high intelligence level, he should not be productive, and therefore successful.

One may conjecture that if proper psychiatric assistance had been instituted early in this individual's life pattern of achieving only failure he might have kept from failure. But now he only "nestles." Who should be responsible for his care and treatment now?

**CASE II: PARALYSIS AGITANS? OR CHRONIC ALCOHOLIC DETERIORATION IN A PASSIVE DEPENDENT TYPE PERSONALITY**

A 47 year old officer with 9 years broken military service was admitted to a military hospital in an apparent state of collapse with marked generalized tremors, complaining of vomiting, and generalized weakness. There was unmistakable evidence of alcohol intake although he denied consuming any large quantity of alcohol over any definite period of time. With general supportive treatment which included intravenous fluids and sedation, he improved rapidly except for the generalized head and hand tremors. Although a reaction to alcohol was believed the most probable cause, the diagnosis of parapysis agitans was entertained. Complete system review and neurological studies failed to uncover sufficient supportive evidence to warrant such a diagnosis. Despite objective evidence of improvement, the patient continued to complain of weakness, confusion and of being physically unable to return to duty. In view of his apparent tension and anxiety, he was transferred to the psychiatric service where almost immediately he

settled back quietly and unobtrusively. He did what he was told but showed no obvious interest in speeding his "recovery" and returning to duty. He was the individual mentioned previously whose daily behavior was so retiring that he would go completely unnoticed by his doctor who indicated "he was so quiet it was almost as if he weren't there." Meanwhile he ate and slept well, participating quietly in the activities available to him in the hospital. There was no evidence of tremor except when attention was focused on him or while he was being interviewed or examined by his physician and when the question of his return to duty arose.

Investigation revealed that nine days prior to his hospitalization he had been discharged from another military hospital to return to a duty status. Upon arrival at his new assignment because of his story of a long hospitalization lasting 111 days, he had not actually started performing any regular duties. During these nine days, he finally admitted he had been drinking a pint or more of whiskey daily. It was further revealed that he had actually only been on duty in Korea for five weeks, when he convinced his medical officer he needed treatment for a general feeling of weakness which prevented him from carrying on. For this, he was transferred from Korea to a hospital in Japan, where the only positive physical finding was a mild urinary infection which cleared quickly with antibiotic therapy. Here, too, he demonstrated his head tremor and underlying tension. Here, too, he showed no interest in returning to duty in Korea. On his ward here, too, he settled into the comfortable apathy of eating, sleeping and participating quietly in the daily ward life, not asking for medicines nor complaining in any way. It was almost four months before he was discharged for a condition which in a civilian hospital might have only allowed his hospitalization to extend one to two weeks. But no—in the military, the idea of "Hospital or full duty" kept this individual in an inactive, unproductive status. Out of 180 days of overseas duty before final dis-

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position was made, he eventually spent 150 days in military hospitals.

His past military history which was obtained during psychiatric evaluation revealed the important fact that during and after World War II between January 1944 and his discharge in July 1948, this officer had spent approximately twenty-seven months (27) in military hospitals.

Between December 1940 and January 1944, little was available as to his medical history but during this period he served chiefly in administrative positions not requiring much responsibility or initiative. It was shortly after he arrived in Sicily in a combat area with a bombardment group that he first displayed intermittent head and hand tremors and developed a neurodermatitis and an anxiety reaction for which he was kept hospitalized *for 5 months* before he returned to "limited" duty in the United States. In September 1944 he underwent an operation for the removal of kidney stones and returned to duty approximately 3 months later. Following this he served in a minor capacity as an instructor at a school in Florida where he remained until December 1946 when he was hospitalized at an Army General Hospital. Here he underwent the removal of kidney stones. This convalescence from the operation placed him in the easy-going, non-demanding, non-competitive existence of complete dependence upon the military medical service. He remained hospitalized from December 1946 until July 1948. One can easily see that such a long hospitalization is something he could never have afforded as a civilian. However, during this entire military hospitalization he enjoyed full military pay, and it certainly gave him the golden opportunity of becoming the expert "nestling" military patient who day by day can unobtrusively spend most of his time in idleness or following his own whims, never showing any spontaneous interest in returning to an active military existence. Finally he received 40% compensation and returned to civilian life.

For three years as a civilian, he was unable to achieve any economic or occupa-

tional success which satisfied him. During this period he had many personal and marital difficulties partly associated with unwholesome drinking habits. Finally his wife separated from him and he returned to live with his aged parents. Certainly the relative inertia associated with his long hospitalization may have lost for him the urge to meet competition and to apply himself to the degree which would warrant an employer believing that he would be an asset. In discussions, he revealed that he could have obtained a job as a high school teacher but he was aware that his personal habits and his lack of energetic application might have made such a position a difficult one for him. He had only held positions for short periods of time and relied upon his compensation and his wife until their separation to get along.

It is no small wonder then that he requested return to active duty when the Korean disturbance created a need for individuals with past military experience. He was finally accepted with a waiver for his past physical disabilities. Nevertheless, to do this he revealed that after several unsuccessful attempts to be accepted he had "pulled some strings" and persisted in his demands until he achieved his wish which was actually to return to what he believed was the sheltering atmosphere of a military existence in which his relative unproductivity might be tolerated or for which he must have yearned remembering how completely he had been cared for during his long hospitalization while he still enjoyed his military pay.

In returning to a military life, he felt assured that in view of his previous physical history and difficulties he might be kept in a comfortable assignment not requiring much expenditure of real initiative or of effort on his part. This he had found when he received an assignment doing administrative work as an assistant director of an ROTC in a southern state. But *within five months* he found himself on his way overseas to Korea where again his assignment was purely a simple administrative one but required his accepting a relatively uncomfortable way of living—something for which

he had not bargained. He revealed that he might not have returned to active duty if he had suspected he would be sent overseas. This idea was a truly unrealistic one since by accepting an active duty status, he had made himself both eligible and liable for overseas assignment. Although he claimed that "he had only gone to pot" after learning he was going overseas, one should suspect that he had only been marginally effective in his ROTC assignment. When his "nestling" pattern was established, psychological tests were undertaken to determine his intellectual and emotional status. They revealed an average intelligence and perhaps a mild generalized deterioration indicated by a narrowing of interests and loss of initiative. His mental capacity still showed good quality of discrimination but this preoccupation and concern over somatic complaints led him to constrict his environmental attachments. He demonstrated capacity for drive but had withdrawn in a passive-dependent way which made him appear inferior. *Not only* were these findings consistent with the patient's age and his history of excessive use of alcohol over the past several years but it was the psychologist's opinion on his objective tests alone that his feeling of inferiority was of long standing and *that it had been strengthened by his long hospitalizations rather than caused by them.*

Comment: From this history of long hospitalizations, the repeated failure of this individual to adjust to any civilian or military situation that placed him in a situation of stress and his easy retreat to an incapacitated state in his own mind because of minor physical disturbances rather than because of personal inadequacies and even a neurotic indulgence in alcohol, it is evident that not only military medical officers but administrative authorities who place people on active duty should be alert to the patient who becomes a "nestler" with even the slightest encouragement. It seems unbelievable that reason could be found for returning to an active status an officer hospitalized as long as he was because of physical findings for which a civilian hospital would not and could

not have allowed him to remain any length of time.

Might not the early recognition of this individual's nestling tendencies and his early return to an active status in his first hospitalizations either have encouraged him to make a military adjustment or at least pointed the way for removing him from the service once and for all because of his defects and increasing emotional imbalance before he becomes a permanent medical burden for the military service and the veteran's administration. Certainly a true understanding of this individual's pattern of behavior might have prevented his recall to active duty where within 6 months he had, because of his own personal problems, again inveigled his way into military hospitals where he remained for over three and a half months.

Here truly was the individual who is not sick enough to be kept continually in hospitals and yet not suitable enough to consider keeping on active duty. Here definitely is the individual who can appear more ill than he truly is, who can seduce the medical officer into keeping him hospitalized because of his unobtrusive retiring manner that encourages procrastination. Here is the individual who eventually if kept long enough in military hospitals or the military service does finally develop a truly serious illness which then makes him the permanent ward of the government when originally much of his own inadequacies were the cause of his failures. Civilian competition would have forced him to be dropped from any employer's payroll long before he could obtain complete compensation. Few if any civilian organizations could afford to accept or keep such an individual or once having removed him from their rolls, take him back again. Yet the military did take him back and assume the burden of a really non-productive individual.

#### CASE III: THE DEVELOPMENT OF THE "NESTLING" MILITARY STATE

A 35 year old married reserve navigator with 12 years continuous service previously

mentioned in this preparation, received notification in September 1953 that he was to be separated from the service as part of the reduction in force program. Since he had planned upon the Service as a career and believed he had been doing well, he was quite disturbed over this and resented the action very deeply. Nevertheless, he went on an extended terminal leave of almost two months and then returned for final processing. While taking his final physical examination he informed the examining physician that since he had undergone a chest operation in September 1950, he had continued to have pain in his chest and felt fatigued frequently. He had undergone the removal by means of a wedge resection of a single asymptomatic granuloma of the right lower lung discovered by the routine annual chest X-ray. On operation, a well encapsulated small granuloma was found and no other evidence of malignant or infectious disease was apparent. One month after his operation, he had been discharged to duty having recovered completely with no evidence of any sequela. He remained grounded from flying for several months because of the operation. As soon as he could, he requested return to flying status because he was "doing all kinds of details that he didn't like" and because he had no military training other than as an aerial navigator. Since he did not complain or make known any physical distress, he was finally returned to flying status in June 1951. From then on he flew regularly. At no time, until he was informed of his approaching separation did he reveal any physical distress demonstrating any incapacity.

In discussing his problem with the medical officer at processing, he revealed his unhappiness about separation and felt that he was being separated because of his medical record, believing that perhaps he had not done well because of his "operation." Both out of sympathy and in an earnest attempt to evaluate this navigator's present chest condition, the medical officer recommended his admission to the hospital for review of his chest and lung status even though there was no clinical evidence of difficulty and

no history of complaint since the time of his operation. At this point one must become aware that the physician was inviting trouble by hospitalizing such an individual for an evaluation which could have been accomplished on an out-patient basis. For no sooner had this officer been hospitalized, than within a few days he began claiming that he had constant pain in his chest and that it had been increasing in severity for the last year. It was related to damp weather, was worse at night and frequently left him feeling weak or feverish. Exercise, he claimed, was difficult for him. However, he had no pain on deep breathing. This excellent exposition of physical symptoms should almost make one wonder whether his description might not have been a studied one. Despite the absence of clinical evidence of any impairment which warranted his remaining in the hospital, on 25 January 1954, almost three months after learning of his separation, because of his insistence that he had physical pain, he was transferred to a large Air Force hospital with a diagnosis of "evaluation of pulmonary pathology not found." Here was an example of an individual being transferred for "no disease found." If the physicians had been decisive, despite his persistent complaints, his true physical condition could have been described together with the residual chest scar and the individual would have necessarily returned for administrative separation and notation of his operation made on his physical examination. Instead his transfer to a second larger hospital to which he proceeded in his own private car allowed him to enter his "nestling" patient phase in earnest. After admission to that hospital, he was found to be well developed and a well-nourished individual with no physical distress but appearing very anxious. Except for this scar site of his right chest wall, his physical examination was negative. Yet the admission impression was given "arthritis, post operative, 5th right rib: Pleurisy? old, right side." Again there was no clinical finding of any significance to have warranted his remaining in the hospital. Nevertheless, a consultation with the Chest

Surgery Service was requested asking for evaluation of the "pain in site of operation since 1950 on exertion and in damp weather." Chest consultation reported that X-rays of the chest showed completely regenerated rib, that physical examination of the chest was negative, lungs were clear and there was excellent expansion of the chest. He felt that the vague chest pain after operation was natural and really a minor problem. What was more important in the eyes of the consultant was the patient's evident resentment of his forthcoming separation which he believed was unfair especially since (1) he had been a prisoner of war in Germany (2) he had been told at one time he had cancer of the lung (3) that he believed he was being separated primarily because of the medical history of his operation. He stated that his operation had impaired his ability to earn a living in civilian life where others would be preferred to him in open civilian competition. The consultant found no physical reason for his further hospitalization since he believed it was necessary that this officer should face his reality situation. This officer's own ward physician also felt that he had "no disability at the present time" and recommended his return to active duty. This physician, a competent internist together with a board certification roentgenologist on fluoroscopy of his chest found that the density changes of the lung on deep inspiration were good, the diaphragms moved freely, 5 to 6 cms. bilaterally, rib motion was good and the heart normal. The impression was given that his pulmonary physiology was normal. Nevertheless, again he met a Medical board who were impressed enough despite notations on the nurses' notes that the patient was always comfortable on the ward. They requested orthopedic and psychiatric consultations. The psychiatric consultation stated that the patient appeared anxious, nervous, presenting multiple somatic complaints including diarrhea, tarry stools, vague aches and pains all over his body including his chest pain at night which he now described as "feeling like someone was beating him all night." The psychiatrist felt that the individual was in

the incipient stages of a conversion reaction with multiple vague complaints. He described as significant, the emotional shock that this individual felt over the realization of being forced to leave the service and seek civilian employment. Yet even this psychiatrist further lengthened his hospital stay by saying that the "possibility of a radiculitis was not ruled out." The orthopedic consultation, 24 February 1954, revealed that the patient had complaints concerning practically every joint, but was concerned chiefly over the right sacroiliac joint which was painful on flexion and rotation of the spine. This pain he claimed was worse on walking, sitting or standing for any period of time. Physical examination was stated to be negative with no evidence of root pressure in the lumbar area, that except for a spina bifida occulta of the distal sacral segment the joint survey was negative. The impression given was "chronic strain of back, especially right lumbosacral region." The suggestion was made that the surgical department see this individual in reference to his complaints of pain radiating over the scar covering the fifth right rib. Again the consultant obscured the issue by continuing the round robin of consultations, all of which except for the surgical consultation, left the gate open for further needless medical investigation. Despite the fact that the surgical chest consultation had been complete on 1 March 54 another surgical consultation was requested with the statement "Radicular pain in right hemi-thorax." "Consultation suggested by Orthopedic service." When the same chest surgeon who examined him previously had seen him again, he reported: "Please see my consultation of 26 January. The problem still resolves itself to the fact that the patient who was a carpenter before he joined the Air Force many years ago, at this time just does not know anything except how to fly as a navigator. I am unable to tell by X-ray or physical examination how much pain the patient really has. I must rely on the patient's history. This suggests discouragement and fatigue (over his problem) rather than intercostal neuritis. However, if you wish, I

can do an intercostal nerve block with procaine. Again I would have to rely upon the patient's statements for results. If he is improved by this procedure, one might consider intercostal neurectomy which occasionally helps in rare cases of persisting intercostal neuritis." This consultation reveals that even the chest surgeon was falling in line for this "nestling" patient because of the feeling that "they still don't believe me, I'll do what they want if they insist." It is interesting, however, that no physician had yet really stated that this individual had "no disease" of importance. On 4 March 54 a neurological consultation was obtained because of "possible radiculitis." It revealed that "on sensory examination the patient's responses were vague. One could not see for sure whether the pin prick was felt more strongly on the right side of the body than on the left side. All other neurological findings were normal." The diagnosis was given "no indication of radicular syndrome" but there was an added note that "one should give further attention to the extremely sluggish pupillary reactions to light, especially from the standpoint of the Wassermann test." (At this point although a cardiolipin test had been performed, the report was not in the chart—another cause for delaying the disposition of cases: missing reports of laboratory tests already complete.) On 1 April 1954 despite the contraindication to the diagnosis of radiculitis, the chest surgeon received a consultation request stating "Can arrangements be made to have intercostal nerve block done?" (One wonders why.) The chest surgeon performed a procaine block of the intercostal nerve from thoracic 3 through thoracic 8. He requested that after adequate segmental anesthesia had been obtained that the patient be observed for signs of improvement for the next several days. The nurses' notes and doctor's comments did not reveal any evidence of improvement or even further complaints of pain by the patient. The patient merely continued his relatively quiet ward existence bothering no one except his physician when he was periodically questioned as to how he felt. On

these occasions, he would recite his symptoms almost in rote. He joined the patients in the ward activities and never complained openly.

A second medical board was held. This time another psychiatric consultation was requested asking for "a more exact diagnosis since the major portion of the 'illness' is psychiatric. Please include stress and incapacity." This consultation report mentioned the previous psychiatric examination on 24 Feb 54 (almost two months earlier) and then described the various complaints of the patient. He now talked of pain in his side, tired feeling all the time that he walks, pain in his hips, numb feeling on left leg one end to the other, periodic diarrhea lasting for several days and mild headaches. The interesting comment was made that the patient stated "nothing bothers him as long as he does nothing." The patient further continued to emphasize that "his physical condition would not permit him to go back to work as a carpenter." The psychiatrist again pointed out that this individual's primary concern was over how he could make a living on the outside. He gave a diagnosis as anxiety reaction, chronic, moderate, manifested by vague somatic complaints, general lassitude and preoccupation with his future.

Four months had passed since this individual had come into the hospital with nothing but a vague complaint of pain over the site of his first operation. Now he gave voice to a multitude of symptoms which were repeated, reinvestigated as indicated by at least a dozen consultations. No one seemed to have the courage to offer him the real therapy that he needed which was to force him to accept the reality of his separation and to face the problem of adjusting to civilian life.

In addition to these repeated needless examinations, this individual had been studied with almost endless X-rays—new ones being made each time that he stressed different symptoms. The X-rays revealed that the partial resection of the right 5th rib had completely regenerated. Chest and

lung findings were always normal. The joint survey performed on 29 January 54 revealed only a mild bilateral hallux valgus with some narrowing of interphalangeal joint spaces of the toes and also a spina bifida occulta. A gall bladder series performed on 1 April 54 without any clinical evidence to support gall bladder disease revealed a viscous of normal size, shape and position with no evidence of stones and good concentration of dye. On 12 May 54 because of the patient's complaint of "arthritis of the hips" X-rays taken report revealed "minimal lipping of the superior margin of the acetabulum probably due to early osteoarthritis. Joint spaces regular." Even an EKG had been taken in January and was found to be normal.

This plethora of tests which was occasioned by this individual's persistent utilization of every minor symptom possible indicates truly the failure of the physician to handle this patient's problem properly. Actually the patient had primarily become a management problem rather than a medical one. He was controlling his entire hospital course and his doctors' recommendation was therefore made that he be placed on the psychiatric service so that control could be taken from him and his problem could be resolved once and for all. Before he was transferred, he inveigled a 3 day pass. He returned with a letter from a civilian physician who explained that he was totally physically incapacitated for military duty because of his decreased vital capacity. This letter instigated another chest consultation for pulmonary function. The chest surgeon again reiterated that he had already seen the patient on three previous occasions. Again he was unable to find any cause for his complaints beyond the patient's concern over his future. He found no X-ray evidence of pathology of fibrothorax. While the patient's vital capacity appeared lower than normal, the consultant indicated that the vital capacity test was the poorest test for evaluation of a patient's pulmonary function since it needed the patient's complete participation and maximal effort. This maximal effort and complete cooperation on the part of the pa-

tient appeared questionable. When the patient discovered that this tactic had failed he secured another pass from which he returned with a letter from another civilian physician who stated that he believed that the individual had an abnormal renal outline on a flat X-ray plate of his abdomen. Again his physician despite the complete absence of any clinical evidence of kidney disease went along with the patient's new complaint and ordered further X-ray studies. These studies reported "KUB flat plate shows nodularity, outer margin of soft tissue outline of left kidney. Some calcified particles right ischial spine probably a phlebolith." Similar films following the I. V. injection of contrast dye revealed normal excretion of dye by both kidneys. Calyces not greatly defined. Impression given was: "Although the nodules on the outer margin of the kidney appear as anatomical variants, suggest left retrograde pyelogram be done to confirm this impression." On 21 May 54 under anesthesia the patient then underwent cystoscopy and a left retrograde pyelogram. *No evidence of any upper urinary tract pathology was found.*

In addition to all of these special laboratory studies this individual received innumerable and expensive biochemical and repeated stool examinations—all of which were completely negative.

Despite all of these seemingly intensive medical studies, this individual on the ward actually gave little trouble. Nurses' notes constantly indicated that he had no complaints, that he asked for no medication and that he frequently was absent from the ward on his own business. In his daily association with hospital personnel, he was cooperative and superficially friendly. It was only during his interviews with the various physicians that his complaints of physical distress would become adamant and his attitude demanding. At no time in the course of his hospitalization had he run any fever or required bed rest. In fact in the total of his 150 days of hospitalization he was away from the hospital for 50 days either on passes or leave allegedly given for convalescence

(or to take care of his own private business—such as going to a civilian doctor to obtain statements concerning physical impairment).

It should be obvious that this individual resenting his separation utilized every possible method of either trying to remain in the service or to be given a medical discharge. Had he not undergone a serious lung operation? But, of course! Yet his physical status revealed that he had recovered sufficiently well from this operation to function for two years satisfactorily as a navigator on flying status. He asked how could the Air Force turn him away after he had given them twelve years of his life? He stressed the facts that during World War II he had suffered burns of his hands and face while flying in Germany. As a prisoner of war in 1944 he had suffered from frost bite. He alleged that in 1946 he had suffered a concussion in an auto accident but showed no sequelae. Nevertheless, despite this history of previous physical difficulties, it was evident that this individual did not demonstrate the physical diseases to the extent that he wished. Actually in February 1954 this individual had already recognized the certainty of not receiving a medical discharge and was prepared to be separated. He had planned to attend the second semester of a college at that very time and even had its acceptance. However, his recognition of the failure of his physicians to perceive the total lack of medical justification in his hospitalization led him to utilize every possible means to distort their medical judgment in the direction of a medical discharge. By June 54 he was so completely absorbed in his "compensation neurosis" stimulated both by the physicians' lack of decisive action and strongly by his having "nestled" for 6 months that when the attempt was made psychiatrically to remove him from his firmly "nestled" situation he struggled violently putting on such a show of great anxiety and hostility that as indicated previously one psychiatrist was tempted to call him a severe hypochondriasis with paranoid trends for which he believed the patient should be given a medical dis-

charge. The patient himself faced with the true meaning of his problem, frequently lowered his defense of physical incapacity revealing his relentless drive to obtain medical separation for an illogical belief that he was completely physically disabled. He stated "I've talked with at least six different civilian doctors. All of them said I was entitled to compensation. I can't go on without compensation." He really admitted his status was wrong when he stated "Before I came here the medical officer at my base should have told me what was right then. I would have been discharged in December (1953)." As it turned out, the "frenzy" with which he sought a medical illness perplexed the physicians for almost eight months before his final discharge in August 1954.

Comment: The details of this case history have been elaborated to show clearly how the physicians themselves either consciously or unwittingly allow these "pre-nestling" patients to sway their judgment and get them to commit error after error in the proper evaluation and treatment of the basic problems facing these patients. Actually this patient's original problem could have been resolved by his first physician and all necessary procedures accomplished on an outpatient basis. At no time did he truly demonstrate any incapacity which required any hospitalization. The physician can learn from this case how necessary it is to control his patient and not be controlled by him, how important it is to seek definite diagnostic decisions early and finally to recognize the meaning of the emotional components that are present. If this course had been followed with this incipient "nestler" his hospitalization would have been short.

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#### AIR FORCE DENTAL SURGEONS CONFERENCE

MAY 1955—WASHINGTON, D.C.



*Air Force Photo*

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*Standing (L to R):* Col. J. S. Cathroe, Hq. ATC; Col. E. F. Wipf, Hq. AMC; Col. E. Gunter, Hq. APG; Col. C. S. O'Grady, Hq. USAF; Maj. J. F. Parker, Hq. USAF; Lt. Col. E. H. Kintner, Hq. NEAC; Lt. Col. H. B. Palmer, SAM; Col. A. D. Strathern, Hq. SAC; Col. P. A. Cornish, Hq. ARDC; Col. G. N. Schulte, SAM; Col. W. J. Reuter, Hq. USAFE; Col. D. C. Hudson, Hq. Command; Col. N. E. Fowler, Hq. USAF; Col. H. D. Oakley, Hq. Command; Lt. Col. K. R. Elwell, Hq. USAF; Col. W. H. Bird, Hq. USAF; Col. J. D. Collins, Hq. ConAC; Col. E. H. McCue, Hq. ADC; Col. G. S. Moore, Hq. USAF; Mr. J. C. Droke, Hq. USAF.

## Principles of Combat Psychiatry\*

By

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WITH the current state of world unrest and because the Korean conflict came only five years after World War II, there has been continued interest and progress in military medicine. Sharing in this advance, military psychiatry has demonstrated increasing effectiveness in the prevention and treatment of combat psychological disorders. Experiences of the Korean campaign confirmed and extended the techniques and methods of combat psychiatry that were first initiated in World War I, then relearned and further developed in World War II. At this time sufficient evidence has accumulated to permit crystallization of certain operational principles of field psychiatry. This presentation has for this objective the elucidation of these basic principles, for it is believed that such information is not only applicable to the management of mass psychiatric casualties, but may be useful in peacetime psychiatric problems.

Perhaps the most significant concept that was evolved through experiences with combat psychiatric casualties concerns a better appreciation of their etiology. Early in World War II, psychological breakdown in battle was viewed by the traditional approach of temporal cause and effect focused upon a single person. In other words, a traumatic psychological event or series of events in battle occurred, following which after a long or short period of time the individual was overwhelmed or disorganized by fear and tension, and thereby incapacitated. Every person was conceded to have his particular breaking point, dependent upon the amount of external stress imposed and his degree of vulnerability or predisposition due to past

conditioning.<sup>1</sup> Thus, a simple stress-predisposition formula was erected which could neatly explain any psychiatric casualty as an inevitable phenomenon by assuming that either the stress was too great or the predisposition overly vulnerable, or both were more or less responsible. However, from an operational standpoint, it was impossible to quantitatively measure stress or predisposition. Moreover, such an equation gave a defeatist outlook to any program of prevention or treatment, since both elements of the formula were beyond control of the individual involved, his leaders, or the military medical services. Combat participants were consciously or unconsciously influenced to determine their own breaking point and thus utilize a socially acceptable failure of adaptation, rather than bear the discomforts and hazards of continuance in battle.

Further observation of behavior in a combat situation revealed so many inconsistencies in a stress predisposition equation that it became untenable as a working hypothesis. Marked differences were noted in the frequency of psychiatric casualties from various combat groups subjected to similar battle circumstances. Vulnerability to psychiatric breakdown seemed to vary from unit to unit as well as in the same person, depending upon different conditions of leadership, group unity, prior training, battle experience, and physiological status. It became apparent that the combat participant rarely functioned alone but almost always operated as an integral member of a group. His behavior from moment to moment in the combat situation was a complex resultant of many simultaneous and changing forces, some of which supported effective or constructive activity, while others tended to disorganize and produce non-effective battle performance. Viewed in this light, the psychiatric casualty represented an end result of a concatenation of circumstances in which there was a temporary

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period of persistent failure of the supportive or defensive forces to sustain the individual against the opposing pressures of functional disorganization. This more dynamic concept of psychiatric breakdown permits an examination of the various supportive and destructive elements of combat adjustment, and thus provides a practical approach to the problems of prevention. Effective treatment also becomes understandable as methods or means designed to restore the sustaining forces to their previous level of competency rather than impossible efforts to alter battle stress or predisposition.

Included in the multiple forces which impinge upon the individual in the combat situation are: (1) influences toward effective function which come from group unity, buddies, leadership, communication, previous battle training and experience which give confidence and competence in the use of weapons, quality and quantity of supplies and weapons, physiological well-being, or a relative freedom from fatigue, hunger, and illness, individual aggressive personality traits, behavior imposed by combat circumstances, and the behavioral standards demanded by the culture and the combat group; (2) disorganizing forces such as the intensity and duration of combat stress, an inability or insufficient time to become integrated in the combat group, lack of group cohesiveness or the disruption and the scattering of the group by battle conditions, poor leadership, faulty communication, excessive fatigue, hunger, dehydration, or intercurrent illness which depress physiological capacity, inadequate battle training or lack of combat experience, severe passivity, seclusiveness, or other vulnerable personality traits, repeated catastrophic combat experiences which have produced a phobic response to stress stimuli, circumstances of battle that permit evasive or flight behavior, and the cultural or group acceptance of symptoms, helplessness, or other forms of non-effective function as permissible in the combat situation.

Outstanding in the resistance against breakdown in combat are several forces generally subsumed under the term "morale,"

namely, group unity or group identification, leadership, and communication. It is obvious that each of the foregoing phenomena are mutually related and do not exist as discrete qualities. Strong or positive group unity cannot be accomplished without effective leadership and adequate communication between the leader and group members. It has been repeatedly demonstrated that units with high morale can successfully withstand the unfavorable effects of severe and continued battle stress, inferior numbers and weapons, scant supplies, and physical deprivations. Groups with high morale give such strong support to their members that vulnerable personality characteristics are apparently bolstered or altered, for one does not observe the defective predispositions that are so frequently obtained by the questioning of psychiatric casualties. The experiences of combat psychiatry have reemphasized an old and familiar axiom, namely, that *the most effective defense against fear and danger is to seek out other individuals and band together for mutual protection*. In combat men seem to be urged by an instinctive huddling process which is forged by survival and success in battle into a powerful emotional bond that not only welds the group into a cohesive unit but provides emotional sustenance as well as actual support. When such a group is adequately led and attention paid to communication channels through which the unit becomes further cemented, relatively little non-effective behavior or psychiatric breakdown is observed.

Linked to the cause of combat psychological disorders, but more directly concerned with their manifestations, is another operational principle of combat psychiatry that involves the purposefulness of non-effective behavior. Man is a pragmatic being, who ever seeks a satisfactory adaptation both for his internal needs and the demands of the outside world. Failure to overcome or master external situations brings defensive mechanisms into play so that even in bizarre behavior such as mutism or uncontrolled flight one can discern primitive efforts to escape from a threatening environment. Less severe

abnormalities such as hysterical paralyses, self-inflicted wounds, and desertion from battle more readily portray their purposeful nature. It can therefore be stated that every type of psychological breakdown in or out of the combat situation represents at the same time an adaptive mechanism which may vary from a primitive to a more sophisticated means of defense against stress. Observations of combat psychiatric casualties indicate that their manifestations are only occasionally determined by early environmental influences. More commonly, behavior in psychiatric breakdown is dictated either by the circumstances of the combat situation or the group acceptance of such manifestations, or both.

To illustrate the effect of the combat situation upon the manifestations of behavior are the following examples. There were very few psychiatric casualties during the first day of the attack upon Pearl Harbor from either army troops or naval personnel who were involved.<sup>2,3</sup> Here was a situation in which being a psychiatric casualty served no useful purpose. Similarly, psychiatric breakdowns are uncommon in naval personnel engaged in battle at sea.<sup>4-6</sup> Psychiatric casualties are also few in number during a hazardous retrograde action, as was demonstrated in the difficult withdrawal maneuver from North Korea in late November and early December of 1950,<sup>7</sup> during which medical facilities were also under attack and it was obviously more advantageous to remain with the combat group. Seldom does a psychiatric casualty become manifest during a patrol action, but does occur after a patrol has reached the safety of its own lines. None of the foregoing should leave the impression that non-effective behavior cannot occur under such situations as listed above, but rather that the manifestations of such non-effectiveness are determined by whether or not they are appropriate to the combat situation. A final example illustrating this point concerns the frequency of AWOLs from combat. For obvious reasons, this type of non-effectiveness was rarely seen in the island hopping campaigns of the South Pacific theatre during World

War II and the guerrilla-infested dangerous regions of South Korea in the early phases of that campaign.<sup>8</sup> In contrast, desertion and AWOL from combat were relatively common in the Mediterranean and European theatres of World War II, where the rear cosmopolitan cities of Rome, Paris, and Naples beckoned with implications of safety and pleasure.

The influence of the combat group upon the type of non-effective behavior manifested is also quite pertinent. Units new to combat, when placed in their first severe battle action, usually have their highest incidence of psychiatric casualties in which there is a wide variety of bizarre manifestations, such as dissociated syndromes and hysterical reactions. As the unit becomes battle hardened and there is developed group cohesiveness and group standards for conduct, not only is there a decrease of psychiatric casualties, but their manifestations become more or less stereotyped or uniform, with little of the dramatic quality previously noted. They exhibit trembling, noise sensitivity, sympathetic overactivity, and mainly verbalize that they "can't take it" or "can't stand them shells." This type of behavior was apparently acceptable by the combat group in World War II as an end stage or breaking point. Bizarre behavior was frowned upon, and was not a necessary requisite for evacuation. In the Korean campaign, dissociated types of reaction in which the individual seemed out of contact with reality and unable to control himself were not infrequent, particularly during the later static combat phases that were punctuated by frequent small-scale assault actions.<sup>9</sup> An interesting example involving group acceptance of behavior occurred with ROK (Republic of Korea) troops. Early in the Korean campaign psychiatric casualties from ROK units were quite rare, because casualties with such manifestations were not evacuated or treated due to their relative lack of psychiatrists and medical facilities. However, other forms of non-effective behavior were common. When ROK soldiers were placed in American units they incurred psychiatric breakdown with a simi-

lar incidence and identical manifestations of their American buddies.

To briefly recapitulate: An important principle of combat psychiatry lies in the recognition that non-effective behavior represents a meaningful adaptation to stress. For this reason the type of manifestations exhibited in non-effective behavior can be influenced by pressures from the combat situation and influences from the combat group. This does not imply that non-effective behavior can be banned by group pressure or eliminated during a desperate situation, but only that the form or manner in which such failure in combat adaptation is expressed can be altered by outside forces.

Another practical principle of combat psychiatry, also related to causation and manifestations, concerns the terminology applied to psychiatric casualties. Past experience with the names that are given to military psychiatric disorders illustrates the ease with which colorful, emotionally charged terms come to be quickly and widely used, such as "shell shock," "concussion," "gas neuroses," "psychoneuroses" and, more recently, "brain washing." Apparently an explanation is demanded for any widespread behavioral disturbance with which most individuals can readily identify. Such an explanation is seemingly best supplied by a culturally acceptable, scientific sounding, magical force, regardless of how vague, generalized, inaccurate, or superficial such a concept may be. It would appear that human beings cannot tolerate an unpredictable environment, but must structure what is occurring to them and others, for only then defensive steps can be taken. Usually the terminology that spontaneously arises indicates physical or mental disease and a pessimistic outcome which in time becomes accepted as unavoidable behavior under stress. Such "labels" operate to deter the potential recuperative and adaptive resources of psychiatric casualties and can also exert a powerful suggestive influence upon combat participants to allow similar feelings and manifestations to become disorganizing instead of continuing or initiating an uncomfortable and hazardous existence. For

example, all of the symptoms of "shell shock" and "gas neuroses" of World War I were observed in individuals who experienced neither artillery nor gas attack.<sup>10</sup>

Names for psychiatric casualties also have an important suggestive influence upon the attitudes of persons responsible for medical care. Frequently medical personnel are spectators or remote observers of battle rather than participants. Thus, they have no first-hand knowledge of combat conditions and usually accept the implications and concepts evoked by unfavorable terminology, which results in their treatment of combat psychiatric casualties as if they were suffering from "shell shock," "psychoneuroses," or "concussion." In so doing they violate the concept of expectancy and aid in the fixation of a transient disorder into a more permanent maladaptation. It should be evident that the terms or names applied to mass psychiatric disturbances are of prime concern to the military organization and its component medical services. Already "radiation sickness" is a promising candidate for naming the psychological disorders in the event of atomic warfare, since it has the proper scientific and magical overtones that can be readily seized upon to explain the unknown.

In World War II new terminology was introduced to circumvent pessimistic and misleading labeling of psychiatric casualties, namely, combat exhaustion, combat fatigue, operational fatigue, and flying fatigue. These terms became widely accepted and did away with "shell shock" and "psychoneuroses." As a neutral descriptive category, such terminology gave the implication of rational causation and transient status with the expectation of rapid recovery by simple measures. It also allowed medical management to become more realistic. For example, a psychiatric casualty strapped to a litter and tagged "schizophrenia" usually would be kept in restraints through the evacuation chain until reaching a special psychiatric facility. Little attention would be paid to the patient's repeated assertions of mental clarity. However, the same patient diagnosed "combat exhaustion severe" would have his restraints

promptly removed upon improvement, since combat exhaustion is a benign temporary condition that is expected to improve in hours or overnight.

For the reasons stated above it is recommended that similar terminology of the combat fatigue type be used to designate mass psychiatric casualties of any future wars, whether due to atomic or other disaster agents.

In the evolution of treatment for combat psychiatric casualties, several basic lessons have been learned from the trial and error experiences of World War I and World War II. Perhaps the most important of these principles refers to that well-known axiom "treatment as far forward as possible" herein termed decentralization. *This approach insists upon bringing psychiatry to the field rather than the evacuation of psychiatric casualties to a hospital facility.* A decentralized program of combat psychiatry has demonstrated the following advantages:

1. Treatment can be given earlier, during the amorphous and reversible stage of psychological breakdown before the time and distance components of evacuation have hardened a temporary condition into a chronic neurosis.

2. At a forward level of therapy, where the psychiatric casualty is still emotionally tied to his unit, efforts to improve lowered physical capacity and foster the sustaining power of group identification are appropriate and remarkably successful in restoring previous ability to maintain combat effectiveness. In marked contrast is the frustration encountered at a hospital level of contending with symptoms and hostility of the now fixated chronic casualty who fights to maintain his favorable status, since removal to a safe and comfortable environment has loosened concern for the group in favor of concern for the self.

3. Psychiatrists and other personnel involved in the management of psychiatric casualties obtain firsthand information of the combat situation with its constructive and disorganizing influences upon behavior. They become better equipped to both give and re-

ceive communication from patients and other combat personnel and thus avoid unrealistic recommendations and dispositions that so frequently characterize the decisions of medical personnel who have little practical knowledge of duties and functions in the combat zone.

4. Prompt restoration to duty by forward management serves to decrease the incidence of psychiatric casualties. This relatively rapid treatment establishes the temporary and relatively benign nature of such conditions, which lowers the high values for disability held by psychological symptoms. Evacuation of psychiatric casualties away from the combat zone cannot fail to communicate to other combat participants that discomfort, tension, and fear is an illness of sufficient severity to require treatment and removal from battle.

The doctrine of decentralization has also been successfully applied to non-combat or peacetime psychiatric disorders by the utilization of mental hygiene units which treat patients on a duty status, while they are still struggling with situation problems, thus preventing hospitalization and its almost inevitable adverse complication of gain in illness.

Intimately associated with decentralization is another operational principle in treatment in combat psychiatry which concerns the attitudes displayed toward acute psychiatric casualties. This principle has recently been termed "expectancy" by Harris.<sup>11</sup> Experiences in World War II and Korea indicate that when treated at a decentralized level, most acute psychiatric casualties recover or worsen, depending upon what behavior is expected of them by the personnel responsible for their medical management. This phenomenon of expectancy was first noted in World War I,<sup>12</sup> when it was found that fresh psychiatric casualties appeared highly suggestible and that a duty attitude by the entire staff in the medical unit was the most important element of the treatment milieu which influenced patients toward improvement. The finding of increased suggestibility of early psychiatric breakdowns was confirmed in World War II and Korea. Causes for the

susceptibility to external influence stem from the characteristic indecision of recent combat psychiatric disorders, in whom there wages an internal struggle between desires for self-preservation or relief from discomfort and fear, and the equally potent obligations imposed by the culture and the combat group, along with motivation to rejoin combat buddies in whom there is a powerful emotional investment. Under these fluid conditions of internal conflict the "right" role to be assumed can be inferred from the attitudes and behavior of others. A treatment environment in which medical personnel, by word or action, emphasize disability and illness solves the patient's dilemma in favor of continued symptoms and helplessness. This is particularly true when evacuation occurs, for here a decision has been reached by others which confirms the illness role. On the other hand, a calm acceptance of the patient's symptoms and story of a traumatic battle episode as being a temporary breakdown of the sustaining forces against stress from which prompt recovery is expected after a brief respite from battle, can produce dramatic and rapid improvement within hours or overnight. The attitude of expectancy for recovery and duty return must be displayed by all medical personnel in the treatment environment, whether the decentralized level of operations be that of the battalion aid station, regimental collecting point, or clearing company.

A major problem is encountered in applying this principle of expectancy, for it is difficult to instill a duty attitude in personnel, particularly medical officers, including psychiatrists. Their medical training conditions them to identify with the needs of patients rather than the welfare of the group. The mere verbal expression of duty expectancy without believing in its correctness as sound medical or psychiatric practice is soon betrayed to the patient by the many non-verbal cues and actions which indicate uncertainty, doubt, or guilt about such a decision. The ability to utilize a duty expectant attitude without anxiety or guilt occurs when the medical officer shifts his identification from the individual to the group. This transition

almost invariably occurs when medical personnel function in the combat zone. As they share in some of the combat stress and relieve their own guilt by participation, there comes an identification with the combat group, along with a better realization of the forces that sustain them in battle. Then they become aware that recovery from temporary breakdown is not only possible, but the expected result in most cases. They come to recognize that they aid the individual as well as the unit by preventing the fixation of a neurotic adaptation that would only cripple the individual in his future efforts at mastering the environment as well as burden him with chronic guilt and loss of self-esteem for failure in battle.

A third pertinent principle of therapy in the combat zone, based upon the utilization of decentralization and expectancy, emphasizes the necessity of brief, simplified methods of treatment. Any complicated treatment regimen violates the principles of decentralization and expectancy, since time and special facilities are required which give the implication of disability or a serious mental disorder. Consequently, an illness role is likely to be perpetuated, or at least a conviction of unfitness for non-combat duty.

Experiences with complex methods, such as prolonged sleep, subshock insulin, and non-convulsive shock therapy, all of which necessitate hospital type care, demonstrated that only mediocre results were obtained even for return to non-combat duty. Barbiturate interviews, so-called narcosynthesis or narcanalysis, can be performed under decentralized conditions, but require one to two hours of the psychiatrist's time for each interview and have been relatively unsuccessful for return to combat duty. This procedure is more effective in severe cases, where the objective is sufficient improvement for non-combat function. Hypnosis fits the requirements of the simple and brief method, and is preferable to barbiturate interviews, particularly in the hands of those skilled or confident in its use. Repeated periodic oral ingestion of barbiturates, designed to insulate the psychiatric patient for one to two days from his anxiety symptoms and recent traumatic ex-

periences, was tried on a large scale in World War II. Logistical difficulties were encountered in that more ambulances and increased personnel were necessary to transport and care for the sleeping or incoordinated drugged patients. This method was abandoned because barbiturates depressed the very sustaining and motivating forces required for improvement. Moreover, an additional one to two days of treatment time was necessary for recovery from the effects of the drug itself. The use of frequent therapeutic interviews was not only impractical from the standpoint of time and availability of the psychiatrist, but when tried generally fostered passive or dependent attitudes and a greater fear of return to combat.

It should be evident that therapy in the combat zone cannot remove painful or disturbing battle experiences, alter personality traits, or change the circumstances and stresses of combat. The hard facts of the treatment problem are that the same person must be enabled to again face the similar conditions that have so recently disorganized him. No magical routines, drugs, or psychological explanations of the past and present can change the harsh realities that must be endured. Despite the foregoing difficulties, an optimistic viewpoint can be taken, because just prior to breakdown the psychiatric casualty had the capabilities of maintaining effective behavior. It is therefore logical for treatment to have as its objective a restoration of this previous competency. Experience indicates that a brief respite from battle, with measures to relieve fatigue, hunger, or other physiological impairment, when performed at a forward level in an atmosphere that expects recovery, provides the most favorable conditions for a resurgence of the sustaining forces to their prior level. The

psychotherapy given under this simplified program, while necessarily brief, include the techniques of ventilation, suggestion, and reassurance, primarily directed toward the combat situation, with little attention paid to the remote past or any analysis of personality components that might explain the present breakdown.

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# Korean Veterans with Psychiatric Disabilities\*

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## INTRODUCTION

IT HAS been demonstrated that advances in military psychiatry were widely used during the period of hostilities in Korea, both overseas and in the "states."<sup>1</sup> Psychiatrically disabled military personnel requiring further treatment were transferred to Veterans Administration hospitals under terms of an Executive Order dated April 14, 1950, or, as war veterans, subsequently applied under current provisions for care in Veterans Administration outpatient clinics or hospitals. This is a preliminary report on a continuing study of psychiatric conditions occurring in Korean veterans. Specific attention is given to the treatment of these patients in the Veterans Administration outpatient and hospital settings. Where applicable and practical, a comparison is made of certain of their characteristics

with those of World War II veterans treated in the same clinical setting.

At present there are approximately 21 million veterans. (Table I) We have reported elsewhere our estimate of 100,000 psychotic patients in the veteran population by 1960 on present morbidity rates.<sup>2</sup> Of the current living veterans, 70 per cent saw service during World War II and account for 82 per cent of those compensated for a service-connected neuropsychiatric disability, 10 per cent or more disabling; 15 per cent of the total veteran population are Korean veterans and account for 5 per cent of those so compensated, a lesser incidence at this time as compared to the World War II group.

A further statistical study of veterans compensated for neuropsychiatric conditions (Table II) shows that approximately one-third of Korean veterans are psychotic as compared to less than one-fifth in the World War II category.

## OUT-PATIENT TREATMENT

Table III is a random sampling of approximately 20 cases in each of 8 different

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TABLE I  
SELECTED STATISTICS OF KOREA AND WWII VETERANS RECEIVING COMPENSATION WHERE MAJOR DISABILITY IS A NEUROPSYCHIATRIC CONDITION, AS OF JUNE 30, 1954\*

	Grand Total	Korea Veterans	WWII Veterans
All Veterans	21,000,000	3,000,000	15,000,000
Percent		15	70
Veterans receiving compensation			
for all conditions	2,000,000	113,000	1,600,000
Percent		6	75
Veterans receiving compensation			
for all NP conditions	452,000	22,000	370,000
Percent		5	82
Veterans receiving compensation			
for psychoses	90,000	7,300	67,000
Percent		8	74

\* Based on statistics from Controller, Department of Medicine & Surgery, Reports and Statistics Service, Veterans Administration.

TABLE II

SELECTED STATISTICS OF KOREA AND WWII VETERANS RECEIVING COMPENSATION WHERE MAJOR DISABILITY IS A NEUROPSYCHIATRIC CONDITION, AS OF JUNE 30, 1954\*

	Veterans Receiving compensation for all NP conditions	Veterans Receiving compensation for psychoses	Percent
Korea Veterans	22,000	7,300	33
WWII Veterans	370,000	67,000	19

\* Based on statistics from Controller, Department of Medicine & Surgery, Reports and Statistics Service, Veterans Administration.

clinics for Korean and World War II veterans receiving out-patient treatment in 1954. As you would expect, Korean veterans as a group are younger than World War II veterans, their age group is narrower, without the wide age variations found among World War II veterans. More of them are single, 56 percent as against 20.7 percent for World War II, and those who are married have only been so for a relatively short period of time. Because of their youth, the Korean veterans present problems that center around beginning civilian adult life, rather than returning to something which has been interrupted as was the case with many World War II veterans. Thus, among Korean veterans there are more problems that are adolescent and post-adolescent in type and concerned with early adult adjustment. The Korean veteran appears very youngish, unfinished and unformed, with the charm of youth and

given to antics of that stage of development. It is our impression that they are less dependable and less predictable than their elders were even at the same age.

Korean veterans are more preoccupied with difficulties related to breaking parental ties; establishing the vocational adjustment and making a satisfactory heterosexual adjustment (Table IV). They present many problems in deciding on a career, education, and adjusting to the problems of recent marriage. They return from service as young and experienced men and often are not accepted as such by families who still con-

TABLE IV

PROBLEMS BECOMING APPARENT DURING TREATMENT OF KOREAN AND WWII VETERANS RECEIVING VA MENTAL HYGIENE CLINIC TREATMENT, 1954\*

No. of Cases	Korean	WWII	Percent
No. of Cases	148	164	
Average age on admission	24.8	33.3	
	<i>Percent</i>		
Marital Status			
Single	56.0	20.7	
Married	33.0	70.1	
Widowed	2.0	1.8	
Divorced	4.0	4.9	
Other	4.8	2.5	

Problems	Korean	WWII
<i>Family</i>		
Parental	58.1	39.0
Marital	21.6	37.8
Children	2.7	10.4
<i>Work</i>		
Getting Job	20.3	17.1
Holding Job	18.9	29.9
<i>Disturbed Interpersonal Relationship</i>		
Yes	72.3	68.3
No	8.1	7.9

\* Based on random sample of approximately 20 cases in each of eight different clinics for Korean and WWII veterans.

\* Based on random sample of approximately 20 cases in each of eight different clinics for Korean and WWII veterans.

sider them as their "high school boys" who left home. Frequently, education for them was interrupted or they have had no prewar work experience and are coming back when employment is not readily available. This table shows that the Korean veteran has slightly more difficulty in securing a job, 20.3 per cent as against 17.1 per cent of World War II, but has appreciably less difficulty in holding a job—18.9 per cent as against 29.9 per cent of the World War II class.

On admission to the mental hygiene clinic, the largest single group of symptoms and subjective complaints among Korean veterans are those characterized as "nervous." This includes feeling depressed, tense, anxious, forgetful, irritable, jittery, guilty, worried, suicidal, and homicidal. A significant number have various somatic symptoms and a smaller number have some form of seizures. Among the problems most frequently found to be present during the course of treatment are disturbances in the area of interpersonal relationships. Familial problems and particularly parental ones also are common. Personality problems are found to occur very frequently and include those resulting from feelings of inadequacy, lack of self-esteem, feelings of futility, not belonging and of being misunderstood.

Table V shows that of this sampling of Korean and World War II veterans receiving mental hygiene clinic treatment during 1954 a considerably greater percentage of Korean veterans received psychiatric treat-

ment while in the military service than the World War II veterans, 63.5 per cent as against 44.5 per cent. Also the treatment provided may have been more effective, since the VA has not seen acute anxiety reactions as frequently among Korean veterans as in veterans of World War II. It is apparent from Table VI that the Korean veterans who do apply for mental hygiene clinic treatment are, for the most part, more seriously and more severely disturbed than World War II veterans and their emotional problems are more disorganizing. They frequently are frankly psychotic patients who previously have been treated for these conditions while in military or VA hospitals. It is pertinent to observe at this point the large percentage of patients with psychotic diagnoses who can be and are being treated on an out-patient basis. It will be noted that there are fewer service-connected psychoneurotic disorders being treated among Korean veterans as compared with World War II veterans with service incurred psychiatric disabilities.

There seems to be more of a general willingness in our Korean veterans to enter into psychotherapy, as though the Korean veteran is more sophisticated than his elder brother about accepting psychiatric help. He seems to have a greater awareness, superficial as it might be, of the psychiatrists or mental hy-

TABLE VI

PRINCIPAL DIAGNOSIS ON ADMISSION OF KOREAN AND WWII VETERANS RECEIVING VA MENTAL HYGIENE CLINIC TREATMENT, 1954\*

	Korean	WWII
No. of Cases	148	164
	Percent	
Previous Treatment		
In Military	63.5	44.5
Other	13.5	22.0
None	23.0	33.5

\* Based on random sample of approximately 20 cases in each of eight different clinics for Korean and WWII veterans.

\* Based on random sample of approximately 20 cases in each of eight different clinics for Korean and WWII veterans.

giene clinic as a source of help for solving emotional problems. However, although they are quick to seek help, the majority rather paradoxically utilize the treatment available in a rather limited fashion. They do well in achieving limited therapeutic goals but have difficulty in accomplishing more. They are impatient, restless, reluctant to follow through, and do not seem to settle down to treatment very easily. After short periods of therapy they feel they can resolve their own problems and discontinue treatment. The Korean veterans tend to resist regularly scheduled psychotherapy over a longer period until they are satisfied that their problems will not be solved through their own resources, such as by an educational or occupational adjustment; working with non-psychiatric physicians to ameliorate somatic manifestations, or utilization of some other external means. This same phenomenon was seen among World War II veterans in the early years after that war, many of whom only became good patients for more effective psychotherapy after several years of unsatisfying attempts at other solutions.

On the other side of the ledger, the Korean veteran treatment possibilities are more favorable in some respects, such as their being younger and therefore having more flexibility and pliability; adjustment difficulties have had less time to become established; a certain freshness of motivation may still be involved in the recent return to civilian life, and secondary gains have not had so long a time to assert pathological effects.

Treatment methods employed for Korean veterans do not differ from those for World War II veterans. Individual and group psychotherapy is the principal therapeutic procedure, and this is supplemented by any other treatment modality which seems indicated. An evaluation of treatment results was made at the termination of treatment in this study, and the results for Korean veterans showed 63 per cent improved as compared to 51 per cent improved for World War II veterans treated in the same clinics by essentially the same methods. However, this treat-

ment for World War II veterans is occurring now, approximately 8 to 10 years after World War II, and many of the neuro-psychiatric conditions have become more chronic. Thus, the 51 per cent of improvement for World War II veterans must be considered in relation to treating conditions that are generally of longer duration and more chronic in type. Treatment results with World War II veterans in the first year or two after World War II also showed an improvement rate of 60 to 65 per cent. Criteria for judging improvement were the usual ones, including gains in personal, social, and economic areas of functioning, as well as objective and subjective betterment.

#### IN-PATIENT TREATMENT

For those Korean veterans hospitalized in 1952 and 1953 for psychiatric disabilities (Table VII), the median length of stay in days was consistently greater than those in other war categories, suggesting, as noted in out-patient clinics, that the Korean veteran's illness is the more serious.

One of our large psychiatric hospitals was asked to review the cases of 20 patients who had seen service during the Korean incident.<sup>3</sup> One case was not suitable and 19 cases can be reported here. Ten patients had been transferred directly to the Veterans Administration from military service. Eight were white; two were Negro. Except for one 18-year-old patient who showed evidence of a psychiatric disorder within two weeks after enlistment and was subsequently discharged from the VA with a diagnosis of schizoid personality, the patients had service ranging from nine months to almost ten years. Except for the 18-year-old and one 32-year-old man, the other eight patients were in their twenties. Five had seen service prior to the Korean outbreak. The records indicated that only two had been in Korea or had seen combat. All had been hospitalized in service for a psychiatric condition. Seven had a diagnosis of schizophrenia on transfer to the Veterans Administration.

The length of hospitalization in the Veterans Administration for those discharged

TABLE VII  
PSYCHOTIC PATIENTS REMAINING IN VA HOSPITALS AFTER SPECIFIED  
NUMBER OF DAYS OF HOSPITALIZATION

Type of Service	Admissions	Median Length of Stay in Days	Percent Remaining After Specified No. of Days			
			1953	90 days	180 days	210 days or more
Korean*	2981	125		60	41	39
WW II	9015	96		52	34	32
WW I	3626	67		44	32	30
			1952			
Korean	1795	202		64	52	47
WW II	9574	102		53	38	34
WW I	2997	70		44	32	29

\* Active service on or after June 27, 1950.

from the VA Hospital ranged from 55 days to 256 days. Three patients are still in the hospital, unimproved, and are considered schizophrenic. Seven patients left the hospital and all but one were considered improved. We have no knowledge of their history since discharge. Three were followed for a period of a year while on trial visit and maintained improvement.

Review was also made of the cases of the other nine Korean veterans who were admitted to the Veterans Administration after their discharge from service. There were eight white and one Negro. They were an older age group. Four were in their thirties and five in their twenties. Four had seen service prior to the Korean incident and years of service ranged from thirteen months to twelve years. There was information that six of the nine had been in Korea and that four had received treatment for a psychiatric disorder while in service. Two had carried a diagnosis of schizophrenia and two a diagnosis of psychoneurosis at the time of discharge from service. Five veterans had no history of psychiatric treatment while in service. The length of time intervening between discharge from service and admission to the VA Hospital was, in none of these cases, longer than 19 months. The diagnosis in the VA was schizophrenia in seven cases, anxiety reaction in one case, and alcoholism and tuber-

culosis in another. Only one patient had been discharged and the other eight patients remain in the hospital, with the likelihood that a second patient will be sent on trial visit. The length of stay in the VA Hospital for this group is between six and twelve months.

This is a very small group of cases from which to draw any generalizations, but does parallel experiences with World War II veterans. It appears that veterans who show evidence of psychiatric disorder in service have a relatively high improvement rate and are able to return to the community. Veterans who give evidence of psychiatric disorder which requires hospitalization after discharge from the military service have a poorer prognosis. Evidently the stresses of military service which may have contributed to psychiatric disorders are alleviated on discharge.

#### CONCLUSION

A preliminary report has been made of Korean veterans with psychiatric disabilities in the clinics and hospitals of the Veterans Administration. A statistical and clinical comparison with World War II veterans having like disabilities has been attempted. Similarities and differences are apparent, the latter indicating that the Korean veteran has benefited by prevention and treatment programs of military psychiatry. It is obvious that preventive measures and adequate treat-

ment facilities must be available in civil life, not only to reduce the drain of monetary awards on the economy of the country, but, more importantly, to preserve and improve the mental health of our citizenry.

#### APPRECIATION

Appreciation is expressed to Dr. Lucy D. Ozarin, Chief, Hospital Psychiatry, and Dr. Raymond Feldman, Chief, Outpatient Psychiatry, for assistance in developing this paper.

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#### *Proceedings of Symposium Published*

A recent publication, "Origins of Resistance to Toxic Agents," contains the proceedings of the symposium on drug resistance sponsored jointly by the Office of Naval Research and the University of Pennsylvania. The *Proceedings* was edited by Dr. M. C. Sevag, University of Pennsylvania, Dr. Roger D. Reid and Dr. Orr E. Reynolds, Office of Naval Research. The book, pub-

lished by Academic Press, N.Y., contains the papers presented by the various speakers and the discussions which followed the various sessions. Topics include: resistance to microbes; resistance to herbicides and insecticides; tolerance and addiction to drugs and alcoholism; resistance factors, infectious agents, and cancer cells; physiological, chemical and genetic viewpoints.

## Military Psychiatry Around the World

By

COMMANDER JAMES L. McCARTNEY (MC), U.S.N.R.

DURING the winter of 1954-55 it was the author's good fortune to make a trip around the world on a former transport of the United States Navy, the *S. S. President Monroe*. Under the auspices of the World Medical Association and the American Psychiatric Association he was asked to speak to eighteen medical societies and was given the opportunity to visit the psychiatric facilities in twenty-five ports.

It is evident that psychiatry has now become an accepted part of all military medicine, although unfortunately, there is no definite uniformity in the practice of this specialty in the different countries.

Although articles have been written about what is being done in psychiatry in Japan, it is evident that Japanese psychiatry has gone backwards during the last quarter of a century. Electroshock is used extensively without much rhyme or reason, and psychotherapy is seldom used. Japanese require absolute obedience to authority, and the medical man is considered a top authority.

The problems of psychiatry in Japan are increasing, with increasing suicide, divorce, alcoholism, and amphetamine addiction. There is conflict between the ironclad traditions of the past and the demand to come up to the speed and glamour of American life. Thus, the use of amphetamine (*philon*), the "awakening drug," is on the increase and is taken by injection as many as 100 times a day.

China is faced with a serious problem of the increasing numbers of emotionally disturbed patients; yet there are no state hospitals, and only eight psychiatrists in all of China. Military medicine is extremely callous, and no time is wasted in handling the emotional problems. In Hong Kong there is only one mental hospital, and this is badly overcrowded, with one qualified psychiatrist doing the work, assisted by two general

medical officers, and with an admission rate of 1,000 patients a year. Psychiatric problems in the British forces are usually sent back to Great Britain.

The Philippines have been attempting to pattern their program after the United States. Although the civil mental hospitals are overcrowded and poorly financed, the military establishment has all the funds it needs. The Military Hospital in Manila has a neurosurgeon in charge of the psychiatric department, and he resorts to lobotomies without hesitancy.

Singapore, which is certainly one of the danger spots of the Far East, is 85 percent Chinese. There is very intensive Communist propaganda going on. There is one well run psychiatric hospital on the island, which takes care of psychotic military personnel if necessary, although British cases are usually sent back to England. The Malay Peninsula has a number of psychiatric hospitals, which take care of military personnel as indicated, but there is a great shortage of psychiatrists.

One of the psychiatrists said that there was no future for the white man in the Far East, and that all white men in Malaya were "whacky." He explained the reason for ECT being popular with the natives—they felt all mental aberrations were due to possession by spirits, and that the electricity drove out the evil spirits.

Ceylon has a very advanced psychiatric program with an excellent psychiatric hospital, and a well trained staff. It also has outpatient clinics. The military is less in evidence here than any place in the Far East. The Ceylonese are to be congratulated on the progress they have made in these first seven years of self-rule, and the plans they have for the future. There was less prejudice and bigotry found here than any other place visited.

India has a serious problem in mental hygiene, as there are so many conflicting

social forces and over 600 different religions. The majority of the 80 psychiatrists in India are in the armed forces. All civilian psychiatrists in the state service are required to spend two years of their 25 years of service in the state psychiatric hospitals. These psychiatric hospitals are very poorly run and badly overcrowded.

It is interesting to note that the drug rauwolfa serpentina, which is heralded by the western world as a great discovery from India for the treatment of psychiatric conditions, is hardly used by the "legitimate" profession in that land. True, it has been used for many years by the native medicine men for the treatment of hypertension, insanity, and snakebite.

Pakistan has a problem very similar to that in India. It is a new country, with 76 million people, plagued with ancient traditions and much prejudice. Karachi is now a city of a million and a half, and they expect two million within five years. There are 1,400 qualified physicians in all of Pakistan, with only 470 members of the medical association. There are about 80 physicians in psychiatry, but only five doing private practice. Practically all the psychiatrists are associated in one way or another with the armed forces.

In Egypt there are 20,000 patients in the state hospitals, which are badly overcrowded and understaffed. This country is trying to break with the past and obviously discourages any interference from foreigners. This country appears to be overrun with the military.

In Italy psychiatry is associated with the military establishment, but all psychiatric casualties are taken care of in civilian hospitals.

Northern Italy is more psychiatric-minded than the south, and patients actually ask for admission to psychiatric hospitals. The approach is, nevertheless, mostly organic, and shock therapy is popular. The staff of the Italian Neuropsychiatric Clinic is composed of neurologists, neurosurgeons, neurophysiologists, and psychiatrists, and assume importance in this order. All the physicians

do private practice, even though they are employed by the state, as the salaries are low, and two-thirds of their income comes from seeing private patients. No adequate salary is earned until a physician gains the rank of professor.

Psychoanalysis is not popular in Italy. The emphasis is put on neurology. There is much use of amphetamine and the barbiturates. The shock therapies are popular, but permission for lobotomies is difficult to obtain. Large doses of chlorpromazine are used in depression, and reserpine has been found very effective in excited schizophrenic cases. Psychologists and psychiatric social workers are not used. Patients are tied to the bed if restless, although individual confining rooms are not used. Wrist and ankle straps are standard equipment in the 1,500-bed state hospital near Genoa. Otherwise, the equipment is of the most modern type and kept very clean.

In France the situation is somewhat similar to that in Italy, except that in Marseille, the headquarters of the Foreign Legion, there is a large military hospital with a 150-bed psychiatric department which takes care of all the casualties of the Foreign Legion. They have an intensive research program going on and a very elaborate 16-channel electroencephalographic machine. Routinely an EEG is done on every patient.

About a third of all psychiatrists in France are associated with the military. The civilian practitioners get 80 percent of their income from state insurance, and 80 percent of the population is insured.

Psychiatry in Great Britain has essentially the same relationship to the military as is found here in the United States. Nearly every psychiatrist of standing in the British Isles is either a full-time worker under the National Health Service (N.H.S.), or a consultant working about seven or nine half days a week under the N.H.S. The N.H.S. has benefited psychiatry in some respects. It has provided some whole-time research workers who organize research covering several hospitals, and such men are often given equipment worth thousands of dollars.

Since the N.H.S. started there have been about a dozen new professorships of psychiatry which are full-time. There is a tendency nowadays for those working full-time in psychiatry under the N.H.S. to have greater prestige, because they can teach and organize research. There is, however, a difference between those who are at teaching hospitals and universities and those who are wholly under the N.H.S. The former are controlled by a medical school or university. Some of these, especially in the London teaching hospitals, such as Maudsley, are part-time in private practice. They have a

higher prestige than those who are under the N.H.S. entirely.

#### CONCLUSIONS

A four months' survey of psychiatric conditions around the world leads to the conclusion that mental and emotional illness in every country is on the increase. Every nation is in turmoil. The value of psychiatry as a specialty in medicine is universally accepted and is a part of most military establishments.

223 Stewart Avenue,  
Garden City, Long Island, N.Y.



*Army Photo*

SHOWN ABOVE BEFORE THE GRADUATION EXERCISES FOR THE ADVANCED DENTISTRY CLASS AT WALTER REED ARMY MEDICAL CENTER ARE: (L to R) Col. T. A. McFall, DC, USA, Director of Dental Division AMS Grad. School; Dr. D. F. Lynch, Pres. Amer. Dental Assoc. (Principal Speaker); Brig. Gen. M. E. Kennebeck, USAF (DC), Chief, Dental Service, Air Force; Col. L. C. Dirksen, DC, USA, CO, Central Dent. Lab. WRAMC; Col. G. F. Jeffcott, DC, USA, Ass't. Chief, Dental Serv., Army.

# The Treatment of Demerol Addiction with Adrenal Cortical Extract and Glycyrrhiza (Licorice): Report of a Case

By

WERNER SIMON, M.D., F.A.C.P., AND ROBERT V. EDWARDS, M.D.\*  
Minneapolis

TINTERA and Lovell,<sup>1</sup> who in 1949 introduced the use of adrenal cortical extract (ACE) in the treatment of alcoholism, have postulated the existence of hypoadrenocorticism in alcoholism and drug addiction, and have selected the term "hypoadrenocorticism" to indicate "a level of adrenal insufficiency comparable in certain respects to a subclinical Addisonian syndrome."<sup>2</sup> Their recommended treatment for withdrawal from narcotic addiction consists of ACE in 10 cc. doses given intravenously every four hours, until the patient is under control with one-fourth his original drug intake. The intervals between injections of both narcotic and ACE are then gradually increased, until the narcotic is completely withdrawn, which usually requires approximately five days. For tension and mood depression, Tolserol may be given, and troublesome anorexia is treated with small doses of insulin.

In view of the overwhelming fear of withdrawal and the intense suffering a majority of narcotic addicts undergo during the period of withdrawal, we modified the ACE treatment outlined by Tintera and Lovell and added Glycyrrhiza. This extract of the roots of *Glycyrrhiza glabra*, commonly called licorice, has been shown by Groen et al.<sup>3,4</sup> to possess an important desoxycorticosterone-like action of such efficacy that patients with severe Addison's disease have been maintained in electrolyte balance with it.

The following case report illustrates the clinical response of a patient with Demerol addiction during the period of withdrawal.

A small, thin, 34-year-old ex-jockey was

admitted to the Minneapolis Veterans Hospital on March 3, 1954, with severe abdominal pain and recurrent vomiting. He gave a history of perforated appendix in 1939, followed by four operations for bowel obstruction in 1942, 1945, 1949 and 1952. In addition, he had had seven or eight minor bowel obstructions treated successfully with conservative measures. For a number of years this patient had gone from one hospital to another. Frequently he would leave within several hours or days, against medical advice. Usually his admissions were for abdominal pain and vomiting. X-rays repeatedly were reported indicative of ileus of a paralytic or mechanical obstruction. In September 1950, the patient was admitted to the Minneapolis VA Hospital with his usual complaints, and a referring recommendation that the veteran should not be given narcotics, since he was believed to be an addict. On February 26, 1954 he was again admitted, but he denied the use of narcotics. On his last admission to the Minneapolis VA Hospital, March 3, 1954, he admitted taking 150 to 200 mg. of Demerol every four hours over the past two years. However, it was strongly suspected that he had been taking Demerol for six or eight years.

On March 10, 1954 the patient was transferred from the Surgical Service to the closed ward on Psychiatry for withdrawal of Demerol. His dose had been reduced by then to 115 mg. of Demerol administered intramuscularly every four hours. At 10:30 a.m. he received 110 mg. of Demerol at the regular time. By 2:00 p.m. he was sweating, shaking, and complaining of abdominal pain. At this time he was given 10 cc. of ACE intravenously. At 2:45 p.m. the shaking, sweating, and abdominal pain

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had subsided, and the patient complained of an occipital headache. At 3:00 p.m. 55 mg. of Demerol was given. At 6:30 p.m. and 10:30 p.m., 10 cc. of ACE were administered intravenously, followed by 55 mg. of Demerol one-half hour later. Each time he complained of occipital pain after the ACE was given.

At 2:30 a.m. the next day 10 cc. of ACE were given intramuscularly. At 3:00 a.m. the patient was awakened for the Demerol. At 6:30 a.m. he again received 10 cc. of ACE intramuscularly, and at 7:30 a.m. 55 mg. of Demerol. Although he complained of stomach pains and refused to eat, he was fairly comfortable and had slept some. Demerol was discontinued at this point.

At 9:00 a.m. March 11 (the second day of the withdrawal), the patient was given 4 cc. of fluid extract of Glycyrrhiza orally. At 10:30 a.m., 5 cc. of ACE intramuscularly were given. At noon the patient had coarse tremors and was sweating. At 1:35 p.m. Sodium Luminal grs. 3 was given by hypodermic. At 3:15 p.m. 10 cc. of ACE intravenously were given, as the tremor and sweating continued. By 4:00 p.m. the patient was resting quietly. His temperature was 98.2, pulse 94, and respiration 20. At 6:30 p.m. 5 cc. of ACE intramuscularly were administered, and Sodium Luminal grs. 3 given at 7:40 p.m. By 10:00 p.m. March 11 the patient was feeling very good and was smiling. For the first time he wanted food, and ate several sandwiches. Abdominal cramps were absent. At 10:30 p.m. 5 cc. of ACE were given intramuscularly. The patient slept soundly all night without medication.

The next morning, March 12 (the third day of the withdrawal) the patient ate a hearty breakfast. 4 cc. of fluid extract of Glycyrrhiza were given orally at 9:00 a.m. ACE 5 cc. intramuscularly were given at 8:00 a.m., 12 noon, 4:00 p.m. and 8:00 p.m. At 8:00 p.m. his temperature was 99, pulse 100, and blood pressure 110/72. Sodium Luminal grs. 3 was given at 10:30 p.m. The patient ate double portions of a high protein, high carbohydrate diet at each meal.

He again slept through the night without awakening.

From the fourth to the seventh day the patient received 1 cc. of Lipo-ACE intramuscularly daily. He continued on 4 cc. of fluid extract of Glycyrrhiza daily for a total of 11 days, at which time the dose was reduced to 2 cc. a day, and over the next several weeks the Glycyrrhiza was gradually reduced and finally discontinued. By the fourth day of withdrawal the patient's condition had shown a remarkable change. He was cheerful and had no complaints, but expressed astonishment that he had not experienced severe withdrawal symptoms. His appetite was excellent, his bowel movements normal, and abdominal pain, tremor and sweating were absent. Mineral oil had not been given since transfer from Surgery. The patient gained seven pounds during the first week of withdrawal, although he had eaten nothing the first 36 hours. He continued to eat well and gain weight. No further difficulty with abdominal cramps or constipation was experienced. Careful observation and frequent search ruled out the possibility of secretive continuance of Demerol. Throughout his pupils remained of normal diameter and active to light. He was discharged on April 14, having gained fourteen pounds in weight.

#### COMMENT

It is of interest to note that objective and subjective improvement occurred about thirteen hours after the first dose of Glycyrrhiza. During this period the dosage of ACE had been reduced by approximately one-half and had been administered intramuscularly instead of intravenously. While the intravenous ACE had been effective in relieving sweating and tremor, abdominal pain was only partially reduced. Occipital headaches, lasting for about one-half hour, invariably followed intravenous use of ACE. However, at no time were severe withdrawal symptoms observed.

One can only speculate on the mechanism of the Glycyrrhiza effect in this case. Whether the combination of ACE and

Glycyrrhiza provided an additional adrenal factor responsible for improved homeostasis and adaptation of the internal environment, or whether Glycyrrhiza supplied a desoxy-corticosterone-like substitution or maintenance factor, cannot be determined from our data. However, in view of the reported therapeutic results obtained with Glycyrrhiza in adrenal insufficiency, further studies seem indicated.

Glycyrrhizinic acid is a polyterpene compound with a structural formula closely resembling the steroid group to which desoxy-corticosterone belongs. The extract of licorice has been used for many years to disguise the taste of drugs, as well as in various forms of candy for children. Its clinical usefulness in Addison's disease has been reported by Groen et al.<sup>3,4</sup> who demonstrated its desoxycorticosterone-like action and its properties to produce sodium and chloride retention and increased potassium excretion. Added to the diet of normal guinea pigs, Glycyrrhiza produced a measurable weight gain and a decrease in the weight of the adrenal glands, which morphologically revealed a functional rest of the glomerular zone.<sup>5</sup>

It is desirable to study the response of other patients to Glycyrrhiza alone during withdrawal from narcotic addiction, and to compare results with control groups treated by the usual withdrawal methods, as well as with an ACE-treated group. If Glycyrrhiza proves effective, it may constitute a major change from the former dreaded procedures used in the withdrawal from narcotics.

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#### Annual Antibiotic Symposium

The Third Annual Antibiotic Symposium sponsored by the Division of Antibiotics, Food and Drug Administration, and the journals, *Antibiotics and Chemotherapy* and *Antibiotic Medicine* will be held in Washington, D.C., November 2, 3, and 4, 1955.

Manuscripts should be submitted to: Dr. Henry Welch, Director, Division of Anti-

biotics, Food and Drug Administration, Department of Health, Education, and Welfare, Washington 25, D.C., by October 3 and a 200 word abstract in triplicate by September 21. The manuscripts will be published in book form by Medical Encyclopedia, Inc., 30 East 60th Street, New York 22, N.Y., under the title "Antibiotics Annual 1955-56."

## Cost of Non-Battle Injuries and Diseases as Compared to Battle Casualties\*

By

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COLONEL ARTHUR P. LONG, MC, U. S. Army†

(With three charts)

**W**E SHALL deal in this presentation with the cost of non-battle injuries and disease, more particularly the former, in terms of manpower losses rather than in terms of dollars and cents.

In the Army in wartime non-battle conditions—injuries as well as disease—account for the greater proportion of days lost. Table I shows that during World War II there were, from all causes, approximately 4/10

TABLE I  
PRINCIPAL CAUSES FOR TIME LOST WW II

	Days Lost WW II	Estimated Total
I. Battle Injuries and wounds	72,000,000	
II. All Nonbattle Conditions	345,781,000	
A. Nonbattle Inj.	59,863,000	
B. Disease	285,918,000	

of a billion days lost, of which battle injuries and wounds accounted for only 1/6, non-battle conditions accounting for the remaining 5/6. Injuries accounted for roughly 1/6 of the approximately 1/3 of a billion days lost because of non-battle conditions.

Table II shows that during World War II there were nearly four times as many deaths from non-battle injury as from disease. Together these two non-battle causes accounted for some 75,000 deaths, compared with the

\* Presented at the 61st annual convention of the Association of Military Surgeons of U.S., Hotel Statler, Washington, D.C., November 29-December 1, 1954.

† Preventive Medicine Division, Office of The Surgeon General, Department of the Army. Statistics furnished by Medical Statistics Division, office of Surgeon General, Department of the Army.

TABLE II

PRINCIPAL CAUSES OF DEATH WW II

Battle causes	225,165*
Died of wounds	26,309
Killed in action	192,798
Declared dead	6,058
Nonbattle causes	75,280
Nonbattle injury	60,054
Disease	15,226

\* Excludes 9,256 deaths, for which see explanation in text.

approximately 225,000 deaths due to all battle causes. This last figure does not include 9,256 deaths among battle casualties where the death was due to non-battle causes (deaths from non-battle causes while in prisoner or missing in action status).

Table III deals with the admissions of soldiers to medical treatment facilities for battle and non-battle causes during the periods of the most marked conflict in the European Theater in World War II and in Korea during the Korean conflict. You will note that non-battle injuries alone accounted in the European Theater for 14% and in Korea for 17% of the total admissions. You will note further that non-battle injuries occasioned a rate of 111 admissions in the European Theater and 217 admissions in Korea per thousand men per year. The diagrams in Figures 1 and 2 show that non-battle injuries have continued, during the years 1952 and 1953, to account for roughly as 1/5 of all man-days lost from non-battle causes, roughly 1/5 of the composite figure "deaths plus disability separations" from non-battle causes, and 2/3 of the figure "deaths alone" from non-battle causes. A rough idea of the total cost to the Nation of these injuries in terms of dollars and

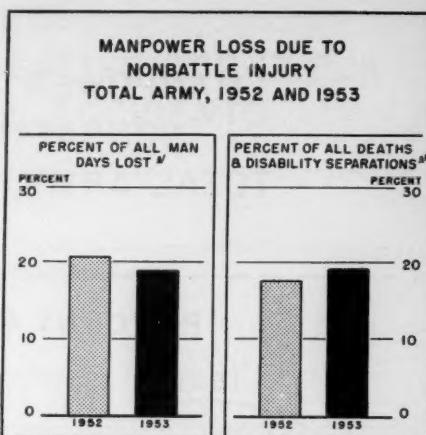
TABLE III

ADMISSIONS FOR BATTLE AND NONBATTLE CAUSES  
UNITED STATES ARMY  
EUROPEAN THEATER IN WORLD WAR II AND KOREA

Command	Percentage of Admissions		
	Disease	Non-battle Injury	Battle Injury and Wound
European Theater (June 1944 through May 1945)	63	14	23
Korea (July 1950 through June 1951)	60	17	23
Admissions per 1,000 Men per Year			
European Theater (June 1944 through May 1945)	484	111	176
Korea (July 1950 through June 1951)	749	217	293

cents could be gained by computing the number of fatal injury cases and multiplying it by \$21,300 and computing the number of non-fatal injury cases and multiplying it by \$1,050.

Admissions for non-battle injuries due to all causative agents during 1953 were at a rate of 50 per thousand average strength, one of the lowest rates ever reported. Motor vehicle accidents were responsible for 6.8 admissions per thousand average strength. The largest proportion of accidental deaths in 1953 was due to motor vehicle accidents, which accounted for 691 deaths, or nearly  $\frac{1}{3}$  of the 2,246 non-battle deaths. Table IV shows for 1952 that while the army had a substantially lower death rate from all non-battle causes than did the general population (adjustment being made for the age composition of the general population compared to that of the Army), yet the Army had a substantially higher death rate than did the general population for accidents of all kinds. In that year there were in the Army 1,180



<sup>a</sup> From nonbattle causes only.

Fig. 1.

deaths due to motor vehicle accidents, accounting for 38% of all non-battle deaths. There were in the Army that year 10 times as many deaths from motor vehicle accidents as from infective and parasitic diseases.

Figure 3 shows that in 1952 passenger motor vehicle accidents led all other types of motor vehicle accidents combined as a cause of injuries among Army military personnel requiring admission to medical treatment facilities. Particularly is this true of passenger motor vehicle accidents occurring to military personnel in an off-duty status, i.e., on leave or absent without leave. The reasons for this state of affairs have been

TABLE IV  
DEATH DUE TO INJURIES

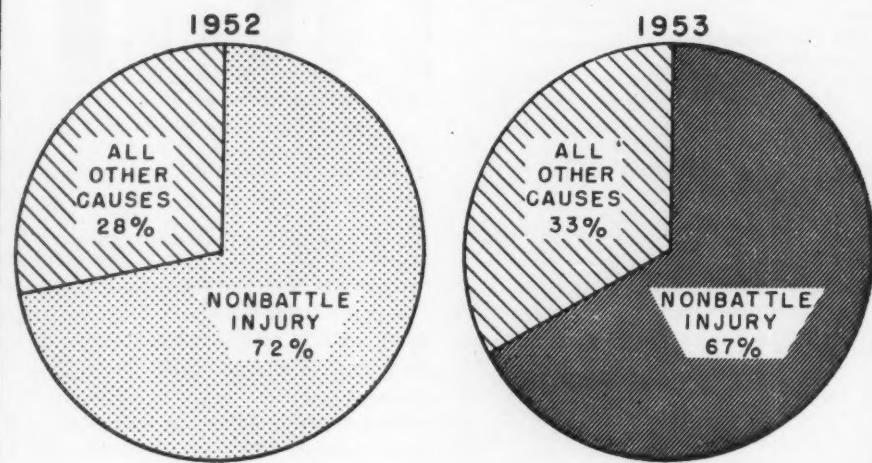
	Deaths per 100,000 Population	
	Total Army 1952	Total Male Pop. US 1950 (Adjusted)
Oper. of War Accidents	173.9	<sup>a</sup>
Motor-vehicle	129.3	88.2
All Other	72.3	51.6
All Causes	57.0	36.6
	188.8 <sup>b</sup>	208.1

<sup>a</sup> Not comparable.

<sup>b</sup> Nonbattle causes only.

**MANPOWER LOSS DUE TO  
NONBATTLE INJURY  
TOTAL ARMY, 1952 AND 1953**

**PERCENT OF ALL DEATHS <sup>a/</sup>**



<sup>a/</sup> From nonbattle causes only.

Fig. 2.

demonstrated, such as driving when fatigued or under the influence of alcohol; or driving too fast, and otherwise taking chances in order to complete as long a trip as possible in the period of leave granted. However, correction of this situation has largely defied the best efforts of commanders and others concerned, even when these efforts have been guided by experts in the various scientific disciplines underlying sound accident prevention practices. Largely to blame are the glorification, on the part of the American public, of speed, pickup and horsepower in automobiles, and the reckless competition among au-

tomobile manufacturers to capitalize on this popular state of mind.

The fact seems to have been lost from sight, or disregarded, that, by his very nature and in spite of what science has been able to do for him, man, like other animals, has a limit to the speed of his reactions. This fact will inevitably lead to accidents under certain circumstances, regardless of the speed with which the automobile is capable either of accelerating in an attempt to escape a tight spot, or of stopping, in an attempt to avoid a collision. That very capacity of the automobile for rapid acceleration, claimed to be

## ADMISSIONS BY CAUSATIVE AGENT FOR MOTOR VEHICLE ACCIDENTS TOTAL ARMY, 1952

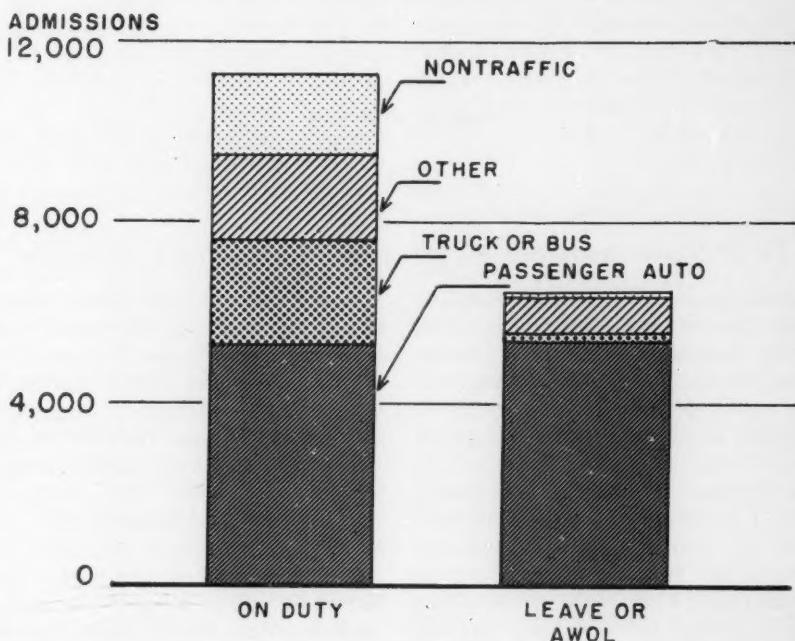


Fig. 3.

valuable for getting out of tight places, is bad in that it tempts the driver to take greater chances than he otherwise would take and thus get into tight places unnecessarily.

The laudable improvements in motor vehicle design, including the placing of controls and instruments within easier reach, as shown to be required by the results of anthropological and other studies, can help—but only to a limited extent—to make up for the deficiency in the speed of man's reactions. To help minimize the seriousness of injuries to persons in case of accident, manufacturers of automobiles, availing themselves of the results of research in crash injuries, anthro-

pology, etc., are making automobiles more rugged and are so constructing and locating the instruments, controls, gadgets and other projections in the cab of the vehicle as to minimize the damage which human bodies would sustain if thrown against these projections in an accident.

It can be seen, from what we have said, that accidents in the Army—preventable accidents for the most part—impose upon the Nation an incalculable cost in terms of manpower losses as well as dollars and cents. Even more staggering than the figures we have cited are the figures computed by the Army Safety Director which we shall not

cite—representing the cost in dollars and cents of injuries to persons and damages to materiel resulting from preventable accidents. Figures were cited above to convey a rough idea of the cost of injuries to persons. Considerations of national defense and economy, as well as considerations of hu-

manity, demand that all of us interested in military medicine concern ourselves with accident prevention and continually strive and cooperate aggressively in worthwhile, sound endeavors to reduce the toll which accidents are taking of the manpower and other resources of the Nation.



### *U. S. Naval School of Hospital Administration Graduation*

Graduating exercises for the Sixteenth Officers' Class of the U. S. Naval School of Hospital Administration, National Naval Medical Center, Bethesda, Maryland, were held on June 16. Commander Charles L. Crawford is Commanding Officer of the School.

The exercises terminated a ten months' course of instruction in Hospital Administration. The class consisted of thirty-two officers of the Medical Service Corps and Hospital Corps, U. S. Navy; ten Air Force Medical Service Corps Officers and one Medical Administrative officer of the Chinese Navy.

Dr. Anthony J. J. Rourke, Executive Director of the Greater Hospital Council of New York was the principal speaker for the occasion.

Those receiving diplomas were: First Lieut. William Ables, MSC, USAF; Lieut. (jg) Jack S. Bailey, MSC USN; Lieut. (jg) Willis E. Bean, MSC USN; Commissioned Warrant Officer James O. Blaylock, HC, USN; Lieut. Charles A. Carroll, MSC USN; Lieut. (jg) Ray W. Conrad, MSC USN; Lieut. (jg) Paul E. Cook, MSC USN; Lieut. (jg) John F. Costa, MSC USN; Lieut. (jg) John C. Courtney, MSC USN; Lieut. (jg) Richard G. DeWitt, MSC USN; Lieut. (jg) Billy M. Edwards, MSC USN; Lieut. (jg) Joseph (n) Feith,

MSC USN; Lieut. Shih-Chuan Feng, Chinese Navy; Lieut. (jg) William R. Furrey, MSC USN; First Lieut. Richard J. Gabel, MSC, USAF; Lieut. John L. Garrett, MSC USN; Lieut. (jg) Douglas E. Haggin, MSC, USN; Commissioned Warrant Officer Jeffrey J. Hardison, HC USN; Lieut. (jg) Vaughn (n) Howard, MSC USN; Lieut. (jg) William H. Johnson, MSC USN; Lieut. (jg) Ray D. Jordan, MSC USN; Lieut. (jg) Paul N. Jula, MSC USN; Capt. Robert G. Kelley, MSC USAF; Capt. John A. Kelly, MSC USAF; Lieut. (jg) Robert L. Koon, MSC USN; Lieut. (jg) Dexter J. Lacy, MSC USN; Lieut. (jg) Vincent E. Lind, MSC USN; Capt. Robert E. Lindner, MSC USAF; Lieut. (jg) Clifford "B" Longest, MSC USN; First Lieut. Robert P. Martin, MSC USN; Lieut. (jg) Kenneth D. Mayfield, MSC USN; First Lieut. Daniel L. McAllen, MSC USAF; First Lieut. William H. McFarland, MSC USAF; Lieut. (jg) Robert E. Meyer, MSC USN; First Lieut. Clifford D. Overfelt, Jr., MSC USAF; Lieut. James H. Parker, MSC USN; Lieut. Jewel P. Ray, MSC USN; Commissioned Warrant Officer George J. Risko, HC USN; Lieut. (jg) Bill J. Smith, MSC USN; Lieut. (jg) Edgar T. Steward, MSC USN; First Lieut. Emmett A. Thornell, MSC USAF; Lieut. John J. Vitlip, MSC USN; Lieut. (jg) Leland E. White, MSC USN.

## Evaluation of Meclizine Hydrochloride in Prevention of Seasickness

By

GORDON R. LOOMIS M.D.\*

MOTION sickness is variably defined. Initial effects often consist of drowsiness and dizziness alone, although nausea and vomiting are usually the presenting symptoms. All are caused by irregular or rhythmic movements, which in this study were limited to those of a sea-going vessel. This strange malady has been a constant source of discomfort to travelers for centuries. It proved to be a definite handicap in seasick ground troops taken ashore in amphibious landings in World War II.

There have been many studies on the mechanism of motion sickness, and on its treatment and prevention. It is now fairly well established that a disturbance or irritation of the vestibular apparatus is the prime cause of the disease, but as yet the dynamics of symptoms are unknown. Successful treatment of motion sickness has not yet been achieved although continuous advancement has been made in the field of its prevention. Though many drugs have been shown in the past to be effective in sometimes preventing motion sickness, none, for various reasons, have been entirely satisfactory. Not the least of these reasons has been the limited duration of effect of the medications used and the high incidence of side effects experienced while taking the drugs.

In recent years a new compound possessing marked activity as an anti-motion sickness drug and having a duration of effect of 24 hours has been developed. This compound is Meclizine Hydrochloride and after thor-

ough study it is now commercially available as Bonamine.<sup>®</sup> In previous anti-motion sickness studies with this compound E. Evrard<sup>1</sup> demonstrated on 39 subjects treated for airsickness the effectiveness of Meclizine Hydrochloride in single daily doses of 25 to 50 mgm. The anti-motion sickness effect, as measured by a depressive effect upon the excitability of the labyrinth and vestibular-cerebellar nerves, lasted for at least nine hours and as long as 24 hours.

More recent and more extensive reports by Chinn et al.<sup>2,3,4</sup> showed by a careful comparison of a large group of compounds that 50 mgms. of Meclizine Hydrochloride in several hundred subjects was at least as effective as any other compound when given only once daily and was the only drug with a duration of activity of at least 24 hours after each dose.

### METHODS AND MATERIALS

The methods now to be described were limited by circumstances to seasickness in susceptible service personnel aboard the United States Coast Guard Cutter Cook Inlet. The Cook Inlet is a 311 foot converted seaplane tender accommodating 140 officers and men. This study began on June 21, 1954 when the ship left Portland, Maine en route to an ocean weather station located in the North Atlantic Ocean. The ship remained at sea for the entire patrol and did not touch land for one month. Although June is one of the quietest months on the North Atlantic, and gales are comparatively infrequent even in northern waters,<sup>†</sup> it was established that half of the subjects selected for the study were invariably susceptible to seasickness whenever the ship left port regardless of weather or sea conditions.

\* Assigned for temporary duty from the U.S.P.H.S. Hospital, Lexington, Ky. to the U.S.C.G. for Ocean Weather Station Duty.

The opinions or assertions contained herein are the private ones of the writer and are not to be construed as official or reflecting the views of the United States Public Health Service or the United States Coast Guard.

<sup>†</sup> From statistics issued by the Hydrographic offices of the Department of the Navy.

Twelve subjects were selected altogether through personal knowledge of the ship's officers and hospitalmen and by questionnaire. The author included himself as one of the twelve subjects although he had not been to sea for some ten years and susceptibility to seasickness was questionable. The study was limited to the first 8 days of sailing because of adaptation of the crew to continuous motion.\* Of the twelve subjects selected, all had been to sea prior to this study, and all had been seasick on at least one occasion. The age range was between 18 and 23 years, excluding the author, and the weight range was between 138 and 186 pounds.

Five subjects had been to sea repeatedly for over 6 months and had become invariably seasick on one or all of the first seven days of each patrol. One subject had been to sea once and had been seasick. The remaining six subjects had been to sea from 6 weeks to 6 months and had been seasick only on occasions. All subjects were given 50 mgm. of Meclizine Hydrochloride 1 hour prior to departure and 50 mgms. once daily on each of the next 8 days. All medication was administered by the ship's hospitalman and taken in his presence. All subjects reported to the ship's dispensary at least once daily. Records of the development of any of the signs of seasickness were kept under the general headings of dizziness, drowsiness, nausea, vomiting, diarrhea and other, and in the degrees of none, mild, moderate, and severe.

#### RESULTS

The twelve subjects could be placed in two groups of six each according to their previous experience with motion sickness. All of the first group of six, who had invariably experienced seasickness on previous voyages, were protected against the usual symptoms of this entity. One of these six subjects reported a transient mild nausea on the second day. None of the other usual manifestations,

such as dizziness, nausea, or vomiting, were reported or observed in any of the group. One subject, who described moderate diarrhea as a previously persistent symptom of seasickness, reported a mild diarrhea on the second and third days of the study which disappeared completely under continued medication. Two subjects reported mild drowsiness early in the study for one and three days respectively which disappeared under continued medication. The latter of these subjects had described moderate drowsiness previously as a symptom of early seasickness prior to nausea and vomiting. This was a very select group. These men had repeated opportunities to become acclimated to the motion of sea-going vessels and had been unable to do so. This small group of selected subjects is equivalent to a much larger group of unselected subjects. The fact that all of these men were effectively protected suggests that Meclizine Hydrochloride may be very effective in the prevention of motion sickness.

All of the second group of six, who had only occasionally experienced seasickness, were completely symptom free. It is difficult to evaluate the results in this particular group because the subjects had previously only experienced seasickness and because of the relative quietness of the North Atlantic at the time of this study.

Medication was discontinued after the 8th day because it was felt, as stated before, adequate adaptation to motion had taken place. The author alone continued to take the medication for the full length of the patrol and experienced neither signs nor symptoms of either seasickness or toxicity from the medication.

#### SUMMARY AND CONCLUSIONS

A group of twelve subjects were selected from the crew of a Coast Guard cutter on weather patrol in the North Atlantic Ocean in June of 1954 for a controlled study of the effects of Meclizine Hydrochloride on seasickness. The subjects were divided into two groups of six each, one group having invariably experienced the symptoms of sea-

\* All of the crew seem to exhibit this adaptation to continuous motion and are usually symptom-free after the first week unless extremely rough weather is encountered.

sickness and one group having only occasionally experienced these symptoms. All subjects were administered 50 mgms. of Meclizine Hydrochloride prior to departure and once daily for 8 days until adequate adaptation to continued motion had taken place.

The group that experienced only occasional seasickness was completely symptom-free. This finding was felt to be significant but difficult to evaluate because of the relatively quiet waters of the North Atlantic Ocean in June. The group that had been invariably seasick was adequately protected from the effects of seasickness as manifested by suppression of dizziness, nausea, and vomiting.

Meclizine Hydrochloride appears to be a very effective agent as an anti-motion sickness drug. No toxicity or adverse effects were noted in one subject even when the drug was taken over a period of 5 weeks.

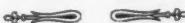
#### ACKNOWLEDGMENTS

This study was initiated through correspondence with Dr. F. E. Bishop of Pfizer

Laboratories. It was approved by Dr. J. F. Van Ackeren, R. Adm., U.S.P.H.S., Chief Medical Officer of the U.S.C.G. and was carried out with the support of G. F. Schumacker, Cmd., U.S.C.G., Commanding Officer of the U.S.C.G.C. Cook Inlet. Charles E. Brady, H.M. 1, U.S.C.G., offered invaluable assistance in the actual administration and recording of the study. The drug was furnished by Chas. Pfizer and Co., Inc.

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### *Noncommissioned Officers and Specialists*

The Army has again made a distinction among its enlisted personnel between those having leadership ability and those having technical skill. On July 1 noncommissioned officer status was reserved for those holding leadership positions, while the specialist category was to include those who have technical and administrative skills. Separation of the noncommissioned officer and the specialist was made in the top four pay grades:

Grade	Noncommissioned off.	Specialists
E-7	Master Sergeant	Master Specialist
E-6	Sergeant 1st Class	Specialist 1st Class
E-5	Sergeant	Specialist 2nd Class
E-4	Corporal	Specialist 3rd Class

Noncommissioned officers will be addressed as Sergeant or Corporal, as appropriate. Specialists will be addressed by that name. The insignia now worn by noncommissioned officers will be continued. Separate distinctive insignia will be worn by Specialists.

# Nutrition as a Military Problem\*

By

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MAJOR ERNEST M. PARROTT, MSC<sup>‡</sup>

DURING and following the Second World War a major concern of the health and medical services of the Armed Forces was the nutritional welfare of the civilian populations of occupied and liberated countries and the nutritional rehabilitation of prisoners of war and inmates of concentration camps. That these responsibilities were accepted and the mission effectively performed is attested by the dramatic recovery of health in western Europe.<sup>1, 2</sup> More recently, the United States has undertaken programs of technical,<sup>3</sup> military,<sup>4</sup> and economic assistance<sup>5</sup> in underdeveloped areas of friendly countries which, again, are a challenge to the health groups of the Armed Forces and of the Missions.

## STATEMENT OF THE PURPOSE OF REPORT

It is the purpose of this report to review some of the nutrition problems with which technical and military advisers will be concerned in those countries of the Far East that are receiving assistance and to restate the principles that guide us in developing these programs.

## REVIEW OF EXPERIENCE IN WESTERN EUROPE

When the United States embarked upon this program of technical and military assistance in underdeveloped areas, our health group was brought into contact with nutritional situations entirely new to them. These problems are in sharp contrast with

those encountered in western Europe at the close of the last war. It is well to recall these experiences because another major conflict involving the United States and its Western allies might result in nutrition problems similar to those in the last war. In Europe the problem was primarily one of acute starvation.<sup>1</sup> The accompanying protein deficiency was secondary to the calorie deficiency. Special measures had been taken by the health officials, such as the distribution of milk, cod liver oil, and ascorbic acid for the protection of mothers and children, and increased allotments of food for workers in heavy industry. Most important, the population had been relatively well nourished before the war and during most of the occupation.

## PROGRAM OF CIVIL AFFAIRS AND MILITARY GOVERNMENT

The program of Civil Affairs and Military Government health branches serving in western Europe was directed toward assisting health officials of those countries in the reorganization of their own services.

Early in the war it was recognized that nutrition would be a major problem among these people. Experts in the field were consulted and on their advice comprehensive plans were made for the survey and feeding of the populations and for the conduct of an extensive program of research<sup>6</sup> into problems of starvation. Approximately 100 specialists in the nutrition field were sent by Government agencies from the United States to assist in the field program. The health and agriculture groups worked closely with supply units to insure that proper types and quantities of foods were imported. Extensive nutrition surveys were conducted, and special medical feeding teams were organized to care for civilians, prisoners of war, and concentration camp victims.

The medical feeding teams screened those

\* Presented at the 61st Annual Convention of the Association of Military Surgeons of the United States at the Statler Hotel, Washington, D.C., November 29-Dec. 1, 1954.

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<sup>‡</sup> Chief, Nutrition Branch, Office of Surgeon General, Dept. of the Army, Wash. D.C.

people requiring dietary therapy. The mild and moderately undernourished were treated at out-patient clinics on an ambulatory basis, and those with an extreme degree of starvation were hospitalized and treated as critically ill. The first impulse to give large quantities of food to individuals suffering from starvation should be resisted, and the individual taught that eating all he might want is dangerous. The ambulatory patient may become a bed patient under these circumstances. The therapy<sup>7</sup> found most successful in the treatment of the advanced cases consisted of providing liquid and soft foods such as milk, eggs, and cooked cereals, not to exceed 1,500 calories daily for the first few days. This permitted a gradual adjustment of the digestive and circulatory systems to increased food intake. The use of oral or parenteral hydrolysates of amino acids, and plasma and blood transfusions were seldom indicated. Parenteral administration of amino acids, protein hydrolysates, saline, and glucose indiscriminately may lead to pulmonary edema and heart failure. The salt intake should be restricted for several weeks to avoid the incidence of edema in the mild cases and possible heart failure in the extreme cases. It should be remembered that the nutritional rehabilitation of a person who has been severely undernourished requires several months before the prestarvation state is reached. Re-feeding should start slowly and proceed with caution.

A major problem with which the health official has to deal is the pressure exerted by political and other groups for the distribution of food under their sponsorship without regard to the danger that comes from uncontrolled feeding. This was a problem in western Europe and also at the close of the Korean conflict.

#### PROBLEMS IN THE FAR EAST

In the Far East the nutritional problems are complex and inseparable from problems of sanitation. The problems of each country appear to be peculiar to that area, and, therefore, each should receive special attention.

The various manifestations of undernutrition and malnutrition vary considerably in degree and type in different countries.<sup>8, 9, 10, 11, 12, 13</sup> Factors which should be considered in determining nutritional requirements of these people are their chronically poor nutritional state, intensity of parasitic infestation, tropical and semitropical climates, and large energy expenditure.<sup>14, 15</sup> The dietary habits of these people are influenced by centuries-old social and religious customs. The source, type, and availability of food are determined by government decree and regulations. Nutrient content of the food is affected by processing methods and preparation, which frequently destroy or remove essential nutrients. On the other hand, some practices add nutrients which one would overlook if one were not familiar with the customs of the country. For example, the Chinese use calcium carbonate in the milling of rice. The calcium is carried over into the cooked rice and thus provides calcium which otherwise would not be apparent from the dietary data.

The acceptance of food by any population is determined by its familiarity with the product. Powdered eggs were not accepted in western Europe until their preparation was demonstrated. Neither are canned goods accepted by much of the population in the Far East. As an example, one might cite an incident in which canned goods were shipped to Formosa; the canned peaches were eaten, but the remainder of the canned goods were acceptable only for hog feed and fertilizer.

To make the problem really difficult for those who work in Far Eastern programs, there is little factual information on the nutritional status and requirements of these populations, which is in sharp contrast to the background of information that was available in Europe.

#### PROBLEMS PECULIAR TO THE ARMED FORCES

The nutritional status of the armed forces of a country is a reflection of the dietary habits of the civilian population and of the adequacy of the quartermaster food service. The ration of the Asian troops is based on

native foods prepared and served according to local customs. The rations are not well standardized; there are, therefore, varying degrees of inadequacy among units. The typical meal includes two main dishes—a bowl of rice and a serving of soup. The foods are highly seasoned. A high proportion of the food is of vegetable origin,<sup>16</sup> with fish being the main source of animal protein. Quartermaster issue may include rice, soybean, barley, millet, dried fish, red pepper and bean mash, soya sauce, bean sprouts, seaweed, onions, garlic, and sea salt. The protective foods such as milk, meat, and eggs are not generally available, and the foods that are sources of vitamins A and C are seasonal. In another situation sweetpotatoes, wheat flour, and cornmeal may be issued. Prolonged cooking is practiced, which destroys certain of the vitamins. The rice is polished or highly milled and the bran is discarded.

An analysis of several of these army rations shows the diet to be low in calories and inadequate in one or several of the nutrients, including fat, vitamin A, ascorbic acid, riboflavin, thiamin, and niacin. Riboflavin appears to be the nutrient most commonly lacking in the diet.

A major difficulty in the food service is the practice of feeding all troops the same quantity of food regardless of activity or nutritional status. Often there is no provision for extra quantities of food for those doing heavy work or for supplementation of the diet to meet a particular medical problem.

The quartermaster food services of these forces are antiquated. Foods are procured locally from undependable sources. There is no refrigeration, and storage facilities are grossly inadequate. Accounting procedures are frequently poor, and local procurement produces shortages and inflationary prices. Cooks and bakers are not trained. All of these affect the health and morale of the soldier.

A problem concerning which the nutrition officer will be asked to advise is the request from government head or chief of military services for importation of foodstuffs for

troops. These may or may not be reasonable requests. The nutrition officer is placed in the unenviable position of either acceding or asking for substantiating evidence to support the request. Western manuals of food composition may not provide information on which to base a decision. Guiding principles in this matter are: the basic ration should be standardized; it must be adequate in terms of nutritional requirements; be acceptable to the troops; familiar to the food service personnel; and can be prepared under field conditions. To illustrate, an instance can be recalled where barley had been supplied to a field unit from United States supplies, without instructions for its preparation. The food service personnel had not recognized that it required precooking before mixing with rice. The result was a cooked product with hard kernels which the soldiers tediously removed from their bowls of rice.

It has been the custom in a number of the Far Eastern countries to provide the soldier with a military allowance or welfare fund. One purpose of the fund is to enable the commanding officer to procure locally produced food to supplement the basic ration. Items included in this supplement are the protective foods such as fresh fruits, vegetables, and fish. Ideally, this might seem to be a good practice. However, there are several reasons why it should be discouraged. In those countries that subsist at a marginal level any food that is drained off from the local supply creates a shortage and suffering among the civilian community. This is an uncertain source of supply, and if the food is not procured or transport fails, these protective foods will be missed from the diet. This is not an infrequent occurrence. In one instance it was found that a large unit had been without these protective foods for at least two weeks because of transport failure. The worst feature of this practice is the promotion of the old system of "squeeze" which the commanding officer uses to supplement his own income. The Chinese have an expression for this—"take from the soldiers' food."

#### NUTRITION REQUIREMENTS OF THE ASIAN SOLDIER

The nutritional requirements of the Asian soldier are not well understood. A premise which has guided some of our advisory groups in setting up rations is that the Asian soldier, being of smaller stature, requires only about 80 per cent of the calorie requirement of the Western soldier. This has proved to be an erroneous assumption since activity, marginal or poor nutritional state and associated diseases, as well as body size, are determining factors in requirements.

Men in a marginal state who are inducted into the services and issued rations which do not correct mild degrees of deficiencies rapidly and progressively deteriorate. It is known that at some training bases new inductees were in the field up to 16 hours a day. The rapid physical deterioration and high casualty rate of these groups were appalling. Those able to complete the training course were not good soldiers. At another training base the United States adviser observed that the troops did not become good riflemen. Examination showed them to be deficient in riboflavin and vitamin A, which probably accounted for some of the visual disturbances. In a number of instances energy expenditure far exceeded the calorie intake, resulting in severe degrees of weight loss. In one unit famine edema was found in about 16 per cent. Neuropathies of thiamin deficiency are common in certain groups. Both acute and chronic forms of riboflavin deficiency are seen in most population groups, and this is believed to be the most common nutritional deficiency in the Far East. Scurvy is unusual, but low plasma levels of ascorbic acid during certain seasons indicate the inadequacy of the diet in this nutrient. Vitamin A deficiency has long been recognized as one of the principal diseases in the Orient. Night blindness was a problem in both the Allied and enemy units at the front in Korea.

There are a number of nutritional states with which the medical officer will not be familiar. Manifestations of malnutrition vary considerably by group and may not be pre-

dicted. Among the manifestations that were unfamiliar to us were enlargement of the parotid gland, a melanin pigmentation of the bulbar and palpebral conjunctiva, and a pellagra pigmentaion of the hands and face.

We are now better prepared to assess the nutritional status of the populations in the Far East than we were at the close of the Second World War. Perhaps the most significant development in the nutrition field in the past ten years has been the adaptation of clinical and laboratory methods to the field.<sup>17, 18</sup> A four or five man team composed of medical, dietary, and laboratory personnel, in addition to interpreters, clerks, and drivers, may now assess the status of 100 to 300 troops daily.

This survey data should be useful to the mission advisers in planning import requirements and production quotas and training schedules, and, most important, of value to the command in predicting casualty rates and military potential. The data is essential to the military surgeon in his planning of medical care of the battle casualty.

#### SOLUTION OF THE PROBLEM

The solution of nutritional problems in the armed forces of these areas requires the attention of several disciplines. Recommendations for immediate action include: (1) review of the dietary and when inadequate, increasing allowances of staple food to provide the essential nutrients; (2) screening of troops to remove from the active roster those men suffering from severe forms of malnutrition; (3) hospitalization and treatment of the extremely malnourished, employing the principles of refeeding that were found efficacious in western Europe, with attention directed to the use of specific nutrients. Special mention should be made of the measures that should be taken for the feeding of recently released prisoners of war and hungry refugees in order that deficiencies are not aggravated by uncontrolled distribution of food. Specialists in the fields of sanitation and parasitology should be consulted before initiating field or therapeutic programs.

In recommending long-term programs for the countries of the Far East it should be emphasized that there is a great need for information on the basic nutritional requirements of these people. Programs should include (1) training of native personnel in both medical and public health aspects of nutrition; (2) development of research and clinical facilities for study of nutrition problems indigenous to those countries; (3) continual working with the native quartermaster corps to improve the food service; and (4) close cooperation of the United States military medical services, and the health, agricultural, and economic advisers of the Missions with their counterparts in order to develop a program that will meet local food requirements. This may include rice enrichment and further development of good sources of protein such as yeast culture, expansion of the fishing industry and the increased use of soybean products.

The inexperienced frequently use United States dietary standards in assessing the adequacy of diets for peoples of other countries. They also think in terms of foods used and thought to be essential parts of the diets in the United States. As mentioned previously, the acceptability of the food is an important consideration and still more important is its availability. Recommended food items must be both acceptable and available to be efficacious. In event a given food yet not available except by import, it would not be wise to recommend its inclusion in the diet. By so doing one may create an imbalance in the economy of the country which could not be supported. We would then be fostering a food support program which once started is difficult to stop. For example, it would be ill advised to recommend the inclusion of milk in the diet of a population which is not accustomed to milk and also is unable to support a dairy industry. One should determine the essential foods which are available or can be produced locally and make recommendations for dietary improvement around these.

These programs of technical, military, and economic assistance to friendly countries in underdeveloped and strategic areas offer an unusual opportunity to workers in the nutritional field to study and be of real service, and these people are asking for help.

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### *Common Beliefs and Understanding*

Speaking before the Bosses Night Banquet of the Junior Chamber of Commerce, Minneapolis, Minnesota, on March 18, 1954, Deputy Secretary of Defense Robert B. Anderson, then Secretary of the Navy, had this to say about "the things we must think about and find ways of doing . . .": "... Americans are basically realists. Even so, the really great objectives of human kind are always just beyond our grasp of realization in time and space. Our progress stems from the constancy of our efforts to reach ever beyond today's horizons into tomorrow's future. This we do by practical plans and procedures.—What are some of ours today?

1. We shall be militarily stronger than any possible aggressor who would challenge our peace and the world's freedom.

2. We recognize our economic strength and stability as a salient indispensable to our total strength and this we shall preserve.

3. We shall make full use of our energy resources for peace while retaining the capability of military utilization beyond that of any aggressor nation should necessity demand it.

4. We shall bring to our government the advantage of sound commercial and industrial practices in order that the fullest realization may be obtained from that portion of our resources devoted to governing ourselves and providing for the common defense.

5. We shall respect and encourage the rights of all who work as well as the expansion of capital accumulation and investment, for both are essential elements of our national economy.

6. We shall preserve and promote government by law emanating from a free people and based upon the absolute character of man's freedom and natural rights consistent with the demands of society and the consent of the governed.

7. We shall support and defend the institutions that guarantee our liberties and progress—our public schools, our colleges and universities, the family, and the churches of our respective choice.

8. We shall maintain an atmosphere of national life conducive to improvement and development of culture, art, and the opportunity of the individual to express his individuality.

9. For each right we assert we shall seek out and assume a responsibility.

10. For each privilege we claim we shall acknowledge and perform a duty.

11. We shall deal with other nations within the world community on a basis of moral and intellectual honesty and we shall expect and require that we be similarly dealt with.

12. We shall welcome a true spirit of international cooperation for peace but will insist that the spirit be manifest by action, that all curtains of iron or bamboo or fear be abolished. We shall insist that peoples be given their rightful freedom of choice and not be subjugated by the ruling clique of a power dedicated to a policy of international domination. Until this is achieved, we shall constantly continue to grow in might, to increase our power wherever necessary and practicable, to make certain that if conflict is forced upon us we shall have the strength, mobility and flexibility of action which will deliver the strategic initiative into our hands.

13. We shall strive to seek out and develop those great areas of common beliefs and understanding which lead men in the direction of brotherhood rather than that of enmity. Our efforts should not lead toward the narrow goal of ideological capture, but rather toward enlightenment and understanding, and as far as human frailty will permit, away from self-centered preoccupation toward mutual respect and appreciation among all nations.

14. We shall face the problems of each day, domestic and foreign, military and civilian, economic and social, with absolute candor, factually and with courage. We shall solve them by unromantic hard work, by common sense, by dedicated purpose and a clear view of our objectives and responsibilities as a free people.

"These are some of the things we must think about and find ways of doing if the billions we are now spending for armaments are to produce any result beyond that of securing our momentary survival."

# The Treatment of Acne Vulgaris with Nicotinic Acid Induced Vasodilatation

By

WALTER E. MARCHAND, M.D.\*

(With one table)

**T**HREE has been no previous report in the literature of the use of vasodilator drugs in the treatment of acne vulgaris. Two observations by the author led to investigation of the possibilities of drug induced vasodilatation in the treatment of acne. These observations were, first, that acne vulgaris was not seen in the boy, girl or young adult who blushed readily and frequently; and secondly, that children and young adults with strikingly ruddy complexions due to a cold-wet environment were rarely if ever afflicted with this disorder.

## SELECTION OF A VASODILATOR DRUG

A careful survey of drugs with vasodilator action was conducted, and it was soon clear that nicotinic acid<sup>1</sup> was the only drug that had definite clinical possibilities in the treatment of acne vulgaris. Nicotinic acid is a vitamin. When taken in therapeutic dosage, this drug has as an untoward action, a distinct flushing of the skin,<sup>2,3</sup> especially pronounced in the emotional-blush zone (face, neck, shoulders, upper chest anteriorly and posteriorly) which is the region where acne lesions are most commonly found. Nicotinic acid is relatively nontoxic and can be taken for long periods with no apparent ill effects. The drug is inexpensive. It has the advantage of being taken orally, and does not necessitate close medical supervision. In summary, therapy with nicotinic acid, should it prove effective in the treatment of acne, would present great and distinct advantages over existing forms of therapy.

## PRELIMINARY STUDIES

A clinical trial with nicotinic acid, to note the effect of drug induced vasodilatation

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upon acne lesions was first tried during 1945. Seventeen soldiers between the ages of 19 and 30 were treated with nicotinic acid. Fourteen had moderately severe and three had minimal acne. Treatment was from one to four weeks with the result that 5 showed marked improvement, 6 showed moderate improvement, and 3 showed slight improvement. The three men who were on therapy for one week only showed no improvement, and in fact noted an increase in the degree of seborrhea.

To rule out a vitamin effect with nicotinic acid, 5 soldiers with moderately severe acne were treated twice daily with amyl nitrite inhalations to produce active vasodilatation. Moderate improvement was noted in one man, and slight but definite improvement in the other four after 3 weeks.

## RECENT STUDY

Encouraged by the favorable results obtained, the author has continued to use nicotinic acid in the treatment of acne vulgaris in the years following WWII. The results observed in 14 patients are tabulated in Table 1.

## COMMENT

Criteria for the determination of the presence of improvement were as follows:

- a. Slight Improvement—Decrease in seborrhea and moderation of inflammatory reaction of existing lesions.
- b. Moderate Improvement—Clearing of seborrhea and the inflammatory process as well as the absence of new comedoes.
- c. Marked Improvement—No new comedoes, clearing of existing comedoes.

The dosage of nicotinic acid varied greatly from patient to patient since an intense flush lasting for  $\frac{1}{2}$  to one hour was the result sought for. For the main, the dose used was

TABLE I

Case No.	Age	Severity of Acne	Treatment in Weeks	Results
1	26	Severe	24	Marked Improvement
2	23	Minimal	19	Slight Improvement
3	32	Minimal	13	Marked Improvement
4	21	Severe	24	Marked Improvement
5	20	Mod. Severe	22	Marked Improvement
6	36	Mod. Severe	23	No Improvement
7	27	Mod. Severe	14	Slight Improvement
8	28	Minimal	24	Mod. Improvement
9	23	Mod. Severe	20	Marked Improvement
*10	20	Severe	20	Marked Improvement
11	25	Severe	19	Slight Improvement
12	32	Minimal	11	Marked Improvement
13	23	Mod. Severe	24	Slight Improvement
14	22	Mod. Severe	30	Mod. Improvement

\* Cryotherapy twice a week was also used on this patient in an endeavor to eradicate deep acne scars.

150 mgm four times a day, one-half to 1 hour before meals and at bed time. With some patients 50 mgm of nicotinic acid was adequate as the pre-breakfast dose, but required 200 mgm. to 300 mgm. of the drug for the other three doses. No untoward effects from the drug were noted except pruritus at the height of the flush. During the early weeks of treatment an increase in the seborrheic tendency and a seeming exacerbation of the acne was noted in several cases, but this then subsided and improvement usually was soon noted. Of interest when comparing the patients of the preliminary study to this group was the greater ease of production of adequate flushing in the former with a much lower dosage of nicotinic acid. I have ascribed this to a greater vasomotor lability of the men in the preliminary group, since most of the men were just recently out of combat when treated.

While undergoing treatment with nicotinic acid the patient continued with the usual skin care which prevailed before treatment, namely, washing with soap and water twice a day.

#### DISCUSSION

Support for the rationale of treatment of acne vulgaris with vasodilator drugs is found when other forms of therapy, which

have given consistently good results, are analyzed.

Roentgen irradiation in the dosage used for acne in dermatological practice produces among other effects, an active temporary or semipermanent vasodilatation of the blood vessels of the skin and subcutaneous tissue. This action of the X-ray is regarded by some to be its main effect on tissue, the endothelium and other tissues composing blood vessels being most susceptible to injury by the rays. It is only when intensive Roentgen therapy is used that capillary and anterolateral thrombosis takes place.<sup>4, 5, 6, 7, 8, 9</sup>

When ultra-violet light is directed upon the skin the resultant effect is to cause an active vasodilatation of the blood vessels. This is thought by some<sup>10, 11</sup> to be due to the action of a histamine-like dilator substance set free by injury to epidermal cells. Pohle<sup>12</sup> believes that the action of ultra-violet light on capillaries is not unlike that of the Roentgen ray, that is, in causing injury to the cells composing blood vessels, except that with this type of radiation the duration of action is much shorter.

The mode of action in cryotherapy (carbon dioxide snow) is to first cause an intense vasoconstriction. This results in tissue anoxia and in direct injury to blood vessel cells as well as epidermal cells. The result-

ant reactive hyperemia which follows upon this is then thought to be due to reflex vasodilatation as well as from the accumulation and release of a histamine-like vasodilator substance. That injury to epidermal cells occurs is seen in the exfoliation which is sought for in this form of therapy.<sup>13, 14, 15</sup>

When moderate heat is applied to the skin, or when the skin is stimulated by massage or some irritative chemical agent, a reflex vasodilatation results. Should the stimulation be more intense, injury to epidermal cells occurs and the resulting hyperemia is again in part thought to be due to the liberation of a histamine-like substance.<sup>13, 16</sup>

Lynch<sup>17</sup> in 1943 used nicotinic acid in the treatment of acne vulgaris in 46 university students and observed improvement in 55% of his cases. It must be noted that he used nicotinic acid not for its vasodilator action, but as a vitamin. He sought to avoid the flushing reaction by giving the drug immediately after meals. It cannot be ascertained from his paper whether the improvement noted in his cases occurred in those who showed a flushing reaction despite measures used to avoid them.

In the present study nicotinic acid was used only for its vasodilator action and not as a vitamin, and the results achieved in the treatment of acne vulgaris warrants further clinical study of the drug in this disorder.

#### SUMMARY

1. The observation that children and young adults who blush readily do not have acne vulgaris led to a study of the use of vasodilator drugs in the treatment of this important skin disease.

2. Nicotinic acid was used in the treatment of acne with excellent results in two series of patients.

3. The method of therapy with nicotinic acid as a vasodilator in the treatment of acne is outlined.

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## EDITORIAL

### Combat Psychiatry

MILITARY doctors are both physicians and soldiers. As leaders of men they have the primary obligation of all military officers who are directly responsible for the morale of the troops. The greatest advancement in modern military psychiatry came when the specialists of the mind realized that they have to be more than just plain Freudian psychoanalysts, and clinicians or observers of those who were pulled out of the line of fire and put behind the tall walls of insane asylums somewhere in the Zone of Interior.

Military psychiatrists are commissioned officers of special skill. Their special skill to maintain the mental integrity of that healthy, sound-minded group of relatively young Americans who, by the will of the Nation, were removed from their normal domestic environment, to be moulded into teams of buddies through long and strenuous training, to the end that, among the horrible ravage of modern weapons, they withstand the attacks of the enemy and hold the line of defense.

During the Second World War, then especially in the Korean Conflict, the modern military psychiatrist learned that—in the interest of the afflicted soldier as well as for conserving the potential tactical strength and maintaining the welfare of the entire team from the squad size up to the division—persons with nervous and mental breakdowns are often best left within the combat zone to receive there, in their accustomed environment, a first-aid psychotherapy. American statistics prove that, after a few days' rest and treatment by troop physicians and specialists, most soldiers fully recover from combat neuropsychosis within the divisional boundary lines. Their return to duty with

the old "gang" is the best safeguard and protection of their own mental health and of the troop morale.

The mental health of fighting forces is a problem in all armies of the world. In many countries the question came up whether the soldier has to stand a lot more stress in the battlefields of the 20th century than his great-grandfather had to suffer in the wars of the past. According to a wide-spread opinion, combat in the modern era is more devastating, and its influence upon the soldier's mind and psyche is different, than the fighting in the previous ages. Yet, Bleuler, the noted psychiatrist of Zürich, doubts this opinion. Indeed, as he thinks, there may be something else active, beside the battle experience of an officially specified number of days, in bringing a combat soldier to the breaking point; mental collapse is most frequently the aftermath of physical collapse from hunger, thirst, insomnia, exhaustion, or disease.

Hence, this Swiss military psychiatrist disagrees with the practice of limiting the combat service of the larger fighting units to an arbitrarily specified number of days to be spent in front-line action. This practice seems to him a very dangerous "dogma" which could soon bring all small armies to their specified breaking points. No other army but the American Army, rich in pipeline reserve, could afford to adhere to the theory of "mental breaking point," and to the resulting practice of *troop rotation* for conservation of mental health, says the Zürich psychiatrist. Repeating his critical words, in other armies the idea of rotation would mean plain suicide. Such reasoning and practice would inevitably reduce the combat capacity of whole armies, and lead to a critical point where strategy and tactics would be in need of serious revamping and

had to yield to considerations of mental and psychological grounds.

Though having such a critical attitude toward the doctrine of battle experience and its stress upon the soldier, Bleuler still cannot agree with such manpower-saving practice as the wholesale narcoanalytic treatment of war-neurotics behind the front-line. It might be true what he says that only a small number of those who had been so treated were ever able to return to their combat units, while the majority of the narco-analyzed had to be put on duty in communication zones. But it is a century-old experience in the field of military psychology where his real argument is anchored against the narcoanalytic restoration of combat soldiers. This experience teaches that a good deal of the soldier's willingness to fight results from his moral and mental ties with his own teammates, ties which to sever he finds most often unbearable. Good example and simple words of consolation rather than any narco-analysis are therefore the most effective measures to help the war-neurotic soldier.

Modern military psychiatric practice must recognize the basic facts of group psychology shown at many turns of the soldier's life. There is a specific spiritual power in disciplined troops which makes the brawn of the average soldier within the team stronger and keeps him longer physically effective. This superior power is feeding on many strong wants and primitive impulses of the human soul. To be effective and curative, the therapeutic methods of military combat psychiatry must strive for arising and feeding the multiple hunger after spiritual vitamins in the combat soldier:—the want for *comradeship*, the *feeling of responsibility* for the rest of the team, the want for *mutual trust* between superior officer and subordinate, and the desire for the *rigors of military discipline* in training. The stamina in battle and in the peril of death depend largely upon these elements in the depth of the soul rather than on the duration and stress of one's battle experience, or the physical constitution of the fighter.



### Beware!!

Runyard Kipling once wrote a poem on "Beware of the Bear That Walks Like a Man."

*When he shows a seeking quarter  
With paws like hands in prayer  
That is the time of peril—the time  
Of the truce of the bear.*

The Russian Bear comes cooing now. The air is full of platitudes. The Bear is in bad straits. Famine and discontent at home. Fear of re-armed Germany. Failure at Bandung.

All have scored against the Kremlin. So the Big Switch is on—or, should we say, is pretended. There is little doubt that when the Soviets lull us into retrenchment, the Kremlin will again show its fangs and the old routine will be on again. Then it may prove harder for us to combat. Beware of the man that walks like a bear.

National Bulletin  
The Military Order of the World Wars  
June 1955

## Around the World

By

CLAUDIUS F. MAYER, M.D.

MAKONGAI is an island near Fiji in the South Pacific. It has a *leprosarium* where the British Government is housing and treating lepers of its nearby colonies. At present there are about 634 patients in the settlement, among them three Europeans, a hundred or so Fijians, and almost 200 Hindus. Though it is no longer necessary to keep the lepers in complete isolation, the disease is still a serious dread. Hence every British colony wherever the disease is endemic has its leprosy hospital, or an outpatient ward for lepers in a general hospital, or a separate settlement. At the island of Makongai, patients arrive from scattered spots of Polynesia. The colony is receiving much help from the New Zealand Leper Trust Board.

Sensationalistic newspapers caused lots of disappointment by their distorted stories about the *anti-leprosy vaccine* prepared by a French Catholic nun of the Marist Order of Missionaries. *Sister Marie-Suzanne*, as she is known to the world, devoted more than 40 years of her life to research in leprosy. She cultivated an acid-fast bacterium from the leprous tumor of a Catholic priest. The new microbe, first called the Chauvire bacillus, was renamed *Mycobacterium marinum* in honor of Sister Marie-Suzanne. With the aid of two French doctors she inoculated the new bacterium into rats. As she described in the 1953 June issue of the *Annals of the Pasteur Institute* of Paris, the lesions which developed in the tissues of the rat resembled those usually seen in true leprosy caused by Hansen's bacillus.

The leprologists are, however, critical, and some of them (e.g., Chaussinand) frankly believe that the nun has discovered a new strain of *paratuberculosis bacillus*. Others are more cautious. A member of the French Medical Academy, for instance, tested on the skin of known lepers the antigens prepared

from the Hansen bacillus and the new mycobacterium. The skin of the lepers reacted differently to the two antigens. Thus, the leprotic nature of *Mycobacterium marinum* is still in doubt. To make the situation more confusing, the doubt has now spread so far that, in view of the curative effect of BCG tuberculin vaccinations in leprosy, some clinicians are prone to believe that the leprosy bacillus of Hansen is just *an altered tuberculosis bacillus*.

This Spring, *Sister Marie* visited the U.S., and studied the methods large American pharmaceutical companies (e.g., Lederle) are using in the preparation of vaccines and other biological products. Her particular problem is that in the tropics the usual equipment for vaccine therapy is inadequate. The hot climate demands a special kind of needles, syringes and vial-stoppers. While in this country, for her work on the vaccine the Sister was awarded the *Ozanam Prize* of the Catholic University of America.

While leprosy continues to plague the world, another dreadful group of infections is on its way out from the civilized countries of the West. The morbidity and death rates of venereal disease became so low in our era of antibiotics that doctors here and in Western Europe are losing interest in the clinical study of gonorrhea, syphilis and the other known scourges of *Venus vulgivaga*. Who wants to write on cases that yield so readily to penicillin? Hence, last year, in its 38th volume of life, the *American Journal of Syphilis, Gonorrhea and Venereal Diseases* quietly died from "deficiency" of manuscript material. Yet, the editors could have transferred their headquarters to *Gambia in West Africa* where syphilis is still very much an "endemic" disease.

Meanwhile, the editors of the deceased journal and our modern syphilologists could follow the example of *Girolamo Fracastoro*,

and amuse themselves by writing comedies. This Veronese physician of the 16th century witnessed the quick spread of the seemingly new venereal disease in its most malignant forms, and called it syphilis in 1530 in a celebrated poem. Then, the doctor's pen began to plough other fields. He ventured into drama, and his comedy, called "*La venexiana*," a play of amorous intrigue of his age, was discovered in a Venetian library in 1928. It was recently translated into English, and commented upon by a British colleague.

The 65-day journey of Dr. Alain Bombard across the Atlantic Ocean in 1952, and the 115-day sailing of William Willis on a raft from South America to Suva proved that *seawater is good for drinking* if it is sipped in small quantities. Dr. Bombard's "experimental" shipwreck also showed that scurvy can be prevented by the plankton, the tiny animals and plants floating in the seawater that one swallows. He was drinking seawater for about 14 days. After World War II, and before the above mentioned experiments, various observations were made on shipwreck and exposed persons, also under experimental conditions on men and animals (such as the kangaroo rat, dog, seal, Cetacea), but none of the studies was conclusive as to the metabolic effect and harmlessness of seawater. Critics of Bombard's self-experimentation said that the biological behavior of a single person cannot be taken for the average reaction of man to the drinking of seawater.

Since the topic is important for all mariners, a French naval medical officer (Aury) arranged in 1953 and 1954 two sets of experiments in which he and eight others spent 4-5 days and nights in rubber boats, under simulated conditions of shipwreck near the Port of Dakar. They did not eat, and were *drinking seawater only*. The nearness of laboratories made daily examinations of blood and urine possible. The *Dakar experiments* agree with Dr. Bombard's observations, and disprove certain wrong assumptions common among mariners. The seawater at Dakar contains about 38.83 gm salts per liter. Each participant drank a pint (500 cc)

of seawater daily. It was easy to drink that much seawater because the men took it in 50-cc amounts at 1½-hour intervals. They were not nauseated by the water; neither did they suffer from diarrhea. They did not feel thirsty, just a little hungry. Medical checks of the subjects did not show any change in their sense organs, nor in their motor system. Their muscle tonus, voluntary motility and motor coordination remained normal. The blood tests showed no uremia (N.B. Those who die from thirst in desert areas usually become uremic). Since on the fifth day of the experiment the drinking of 1½ liter of fresh water quickly reverted the metabolism of the men to normal, the investigators recommend that shipwrecked persons in general should always spare their supply of fresh water at least until the 5th day of exposure.

The American Dental Association published a set of articles on the *status of dentistry in various countries*, in Great Britain, Germany, Norway, Finland, the Philippines, Japan and India, also on geographic aspects of some dental diseases, as on the role of betel chewing (a bad habit of the Hindus) in periodontal disease, the low rate of tooth decay in certain parts of Greece, and on practical problems in Mexico and Uruguay.

Of special delight to us is the *note from Greece*, partly because its author (Philippas) is living at Athens in the venerable "Hippocrates Street," partly since it tells about the dental health of an almost primitive group of people who never heard of fluoridation. They are living at a small, isolated *village named Kitta*, in the province of Mani, at the southern extremity of the Morea Peninsula (which is continental Greece). The only drinking water for the 200 inhabitants is the rainwater collected in cisterns, and it has a low fluoride content of 0.03 parts per million. They live an idyllic life without dental or medical care. Yet, the teeth of all children are in excellent condition, possibly because their healthy, primitive diet is of such consistency that it requires strong biting, cutting and chewing, the very best way to keep the teeth healthy.

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The quality of the food is a chief factor in human health and happiness. The fate of individuals as well as of races depends upon what kind of food they are eating. Let's look into Tibet, for instance. Some years ago (1942), Swami Pranavanand, a Hindu scholar who traveled in Tibet, stated that the total number of the *population had not changed in Tibet* during the past 200 years (for which statistical figures are available). He believes that the cause of demographic stagnation is the Tibetan diet. The principal dishes of Tibet are prepared chiefly from garden peas: 1) *thugpa* is a soup made of 1 part of barley and 3 parts of dried peas with some meat; 2) *champa* is a dry powder of 1 part of barley, and 3 parts of roasted peas. Before Pranavanand, several Hindu scholars noticed the *fertility-reducing effect of peas*. Rats fed on peas have fewer offspring (Nag; 1935). Pea-seed oil injected into rats will reduce the fertility of these animals (Sanyal; 1950).

The antifertility factor was extracted from pea-seeds by Sanyal, a Hindu bacteriologist. Chemically it is *m-xylohydroquinone*, a non-toxic substance which can be synthesized from *m-xylidene* (Kodak). Since India is struggling with overpopulation, it is quite natural that Hindu scholars turn to the lowly plant, the common garden pea (*Pisum sativum*) to find a *solution for overpopulation*. Indeed, the antifertility factor of pea-seeds was tested in a series of *experiments in Calcutta*. Almost 300 women were given, each month for 12 months, 150 milligrams of *m-xylohydroquinone* in capsules. At the end of the year the treated group as a whole showed a 75% reduction in fertility (measured by the number of pregnancies) than the control group of Hindu women.

Fertility and sterility are now world-wide problems, and the recently (May 1955) held Second *World Congress on Fertility and Sterility* had many angles to discuss in Naples before a mixed audience of physicians and veterinarians. The meeting was under the sponsorship of the New York group known as the International Fertility Association. The Congress considered the

endocrine and metabolic factors, the professional and toxic influences, the new diagnostic methods, and the interventions used in studies and in treatment.

The recent high demographic score reached by the United States a few weeks ago reminds us of somebody's (Kirk) supposed statement that the *birthrates in the U.S. and in Russia* are so good that even if both countries would be wiped out by H bombs their numbers would be replaced in 10 years (N.B. This demographer of the atomic age forgets the old dictum that "*ex nihilo nihil fit*," or he must believe in a modern *Phoenix redivivus*). According to the Institute for Historical and Cultural Studies of the USSR the population of Soviet Russia was 204,400,000 in 1951. Taking the yearly increase for three million, the total present population of Russia must be about 216,000,000.

For many years, various Russian interests have been closely tied with the Northern Arctic regions. During the last three decades knowledge of this vast area, of its life forms and its effect upon the rest of the world has grown tremendously. Russian biological studies of the Polar Region are especially extensive and intensive as the published records indicate. Part of the studies, under the direction of the Russian Academy of Sciences, was recently devoted to the *bacterial flora of the North Pole* and its neighboring area.

Since 1951, the world literature on *epidemic hemorrhagic fever* increased to a rather large volume, especially in the U.S. and the western world. It was strange to see that Russian investigators recently remained silent on this subject though the disease is endemic in the Far Eastern Coastal areas of Siberia. A few years ago I detected that since 1944 the military laboratories near the Amur River had been experimenting on human volunteers in the hope that the virus of epidemic hemorrhagic fever—or endemic hemorrhagic nephro-nephritis as the Russians call it—could be found. But nothing leaked out later from these Siberian laboratories. It is therefore a great surprise

to read three reports on the very subject in which *Hungarian scholars describe details* of the pathology, epidemiology and clinical course of epidemic hemorrhagic fever on the basis of 58 original observations made in North Hungary.

The disease was first named epidemic hemorrhagic fever by the Japanese who thought that it was a new disease that attacked their armies in Manchuria in the 1940's. In June 1953 an obscure pandemic

"viral" disease broke out among the troops at Camp Ozuki, Japan; it resembled infectious hepatitis. Then, again in the same year, the soldiers at Camp Itami contracted a new "virosis" after eating sausages. Reading about so many obscure pathogenic *vira* (plural!), one wonders whether some rampant ones among them had attacked and perhaps destroyed the old-fashioned bacteria that used to cause the infectious diseases of the late Victorian Era. . . . *Multa paucis!*



#### NAVY NURSES IN ATTENDANCE AT BIENNIAL CONVENTION OF NATIONAL LEAGUE FOR NURSING

ST. LOUIS, Mo., MAY 2-6, 1955



*U. S. Navy Photo*

*First Row (L to R)*—Lt. Clare K. Klein, Lt. Alice M. Rothermel, Capt. W. L. Jackson (Director, Nurse Corps, U. S. Navy), LCDR Elizabeth B. Seidl, Lt. Marjorie Feldworth.

*Second Row (L to R)*—Lt. Pearl Herbert, LCDR Pearl Houska, Lt. Margaret Gettle, Lt. Christine Collins, LCDR Edna Scheips, Lt. Pauline Erjavit.

## Our Group Health and Accident Insurance Plan

AUGUST 15th will mark the first anniversary of the group disability program sponsored by this Association as an added benefit for its eligible members.

In 1953 a survey of our membership was made to determine the interest in such an insurance program. Because of the interest manifested by a large percentage of members who would be eligible, your officers proceeded to ascertain the rates and the benefits obtainable from a number of companies. Of those considered, the Educators Mutual Insurance Company of Lancaster, Pennsylvania, was chosen as the carrier, and the Association Service Office of Philadelphia was approved as administrator of the plan.

One of the requisites for granting protection, regardless of individual medical history, was a fifty percent participation of the eligible members. Unfortunately this goal was not reached. Consequently, in justice to the members who had submitted applications, we entered into negotiations with the carrier in an effort to secure approval of members who had good health records. This was agreed upon and policies were issued to those with such records. Happily this proved to be the majority of applicants. Those members who had questionable medical histories were issued certificates with riders excluding the payment of benefits due to specifically mentioned medical conditions. When our goal is reached these riders will be removed and certificates will be issued to all applicants regardless of medical histories.

Those who have had cause to apply for benefits under their certificates of insurance have found settlement of claims to be prompt and equitable.

Our solicitation will continue until our goal of fifty percent participation of eligible members is attained. Those members who are eligible would do well to bear in mind the benefits granted under this health and accident insurance plan—namely, 5 years sickness (no house confinement required at any time), and lifetime accident benefits. Particularly those members who expressed interest originally would do well to review their needs at this time. Newer members of the Association are urged to apply after they have passed their one year membership requirement.

Remember, you not only provide for yourself the protection afforded by the generous provisions of this plan at remarkably low rates, but your participation will help to successfully qualify this plan for the Association so that unrestricted coverage may be extended to all eligible members who desire to participate. We earnestly solicit your support of this worth-while program. Prompt attention will be given your requests for detailed information regarding the plan. Address your inquiries to:

Association Service Office  
Association of Military Surgeons of the U.S.  
Suite 914, 1500 Walnut Street  
Philadelphia 2, Pa.

## SUSTAINING MEMBERS

It is a privilege to list the firms who have joined The Association of Military Surgeons as Sustaining Members. We gratefully acknowledge their support.

ASTRA PHARMACEUTICAL PRODUCTS, INC.

AYERST LABORATORIES

BAXTER LABORATORIES, INC.

BECTON, DICKINSON AND COMPANY

BISHOP, J., & CO. PLATINUM WORKS—MEDICAL PRODUCTS DIVISION

BURROUGHS WELLCOME & CO. (U.S.A.) INC.

CIBA PHARMACEUTICAL PRODUCTS, INC.

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PITMAN-MOORE COMPANY, DIVISION ALLIED LABORATORIES

PROFEXRAY, INCORPORATED

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WARNER-CHILCOTT LABORATORIES DIVISION WARNER-HUDNUT, INC.

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WYETH LABORATORIES

## ASSOCIATION NOTES

Timely items of general interest are accepted for these columns. Deadline is 3rd of month preceding month of issue.

### Department of Defense

*Ass't Secretary (Health & Medical)*—Hon.

FRANK B. BERRY, M.D.

*Deputy Ass't Sec'y*—Hon. EDW. H. CUSHING, M.D.

#### RESERVE AWARD

A bronze plaque with a citation certificate and a pennant for display purposes, known as the Department of Defense Reserve Award, has been authorized by the Secretary of Defense. The award will be given for outstanding cooperation in having policies favoring reservists and Reserve activities. Any employer, company, or business will be eligible, providing the policies support such matters as: leave, in addition to regular Reserve tours of duty or emergency duty, with pay, or with the difference in pay between military and organization; personnel policies and procedures, including hiring, promotion, or transfer of reservists without discrimination; assistance to reservists in making scheduled training; and a demonstrated interest in Reserve activities.

To be eligible for the award, a firm must also give organizational support to Reserve activities through the use of: bulletin boards, meeting rooms, training aids and transportation, as well as company news media, exhibits and advertising in newspapers, radio, television and other media.

Reservists employed by the organization may make recommendations for the award

which will be forwarded through military channels to the Department of Defense.

#### DENTAL SCHOOL GRADUATES

Brig. General Arthur L. Irons, Director, Dental Activities, Walter Reed Army Medical Center, recently presented graduation certificates for the Advanced Dentistry course to: *Lt. Colonels* A. W. Kirchhoff, USA; Norbert S. Lang, USA; J. A. MacGowan, RCDC; J. E. Rooney, USAF; D. C. Klevan, USA; *Majors* W. E. Benson, USA; H. Bethart, USA; G. S. Gamble, USA; E. L. Hunter, USA; R. E. Long, USAF; R. P. Moss, Jr., USA; F. W. Shaffer, USA; F. H. Vonnahmen, USA; C. E. Weber, USAF; *Captains* Antonio Yazigi, Chilean AF (DC) and Keh-Kang Chu, Chinese Nationalist Forces.

Presiding at the exercises was Colonel Thomas A. McFall, Director, Dental Division, Army Medical Service Graduate School. General Leonard D. Heaton, Commanding General of the Center gave some remarks, which were followed by the graduation address by Dr. Daniel F. Lynch, President, American Dental Association.

#### VETERINARY OFFICER GRADUATION

The fourth class in Advanced Veterinary Medicine, including Army and Air Force veterinarians, graduated at the Walter Reed Army Medical Center on June 3. The principal speaker at the graduation exercises was Dr. A. H. Quin, President of the American Veterinary Medical Association.

The graduates were: Lieut. Colonels W. F. Collins, W. M. Couch, C. W. Gollehon; Majors W. S. Gaston, Dan Hightower, R. B. Greiner, R. E. Hineman, S. E. Spanier, G.

O. Thomas, L. R. Wempe, W. H. Wilson; and Captains R. L. Brown and G. M. Rose.

## Army

*Surgeon General*—MAJ. GEN. SILAS B. HAYS

*Deputy Surg. Gen.*—BRIG. GEN. JAMES P. COONEY

### ASSIGNMENTS

Brig. General Elbert DeCoursey, Director of the Armed Forces Institute of Pathology, has been assigned to the Medical Field Service School, Brooke Army Medical Center, Fort Sam Houston, Texas, effective in August.

Brig. General Paul I. Robinson, Commanding Officer of Madigan Army Hospital, has been assigned to Letterman Army Hospital, San Francisco, California, effective in July.

Colonel Douglas B. Kendrick, Jr., who has been commanding officer of the Army hospital at the U. S. Military Academy, West Point, N.Y. has assumed the duties of Executive Officer in the Office of the Surgeon General.

Colonel James B. Stapleton, MC, has been appointed commanding officer of the Army Hospital at West Point to replace Colonel Kendrick.

Colonel Thomas J. Hartford, Commanding Officer of the Tripler Army Hospital, will be the new Deputy Commanding Officer of the Walter Reed Army Medical Center.

Replacing Colonel Hartford in the Hawaiian position will be Colonel John Bohlender, who has been Surgeon of the Fourth Army Area, Fort Sam Houston, Texas.

Brig. General Don Longfellow who has been Health Director of the Canal Zone Government has been assigned to the Office of the Surgeon General.

Colonel Roger Prentiss who has been Executive Officer in the Office of the Surgeon General has been assigned as Surgeon of

the Third Army Area, Fort McPherson, Georgia.

Lt. Colonel Eileen W. Brady, ANC, has been assigned to the Office of the Surgeon General. She will replace Major Harriet H. Werley as Career Guidance Adviser for the Army Nurse Corps in the Personnel Division. Major Werley is being transferred to the Army Medical Service Graduate School at the Walter Reed Army Medical Center.

### COLONEL KIMBROUGH HONORED

Colonel James C. Kimbrough, an outstanding figure in urological circles, has been elected president of the American Urological Association's Mid-Atlantic Section. This is the first time in the Association's history that a former Army officer has held the position.

In 1952 the American Urological Association presented him with a plaque in recognition of his contributions to the advancement of the science and practice of urology.

Colonel Kimbrough served in both World Wars I and II. He was appointed as a consultant to Walter Reed Army Medical Center by an Act of Congress in 1953 after many years service at Walter Reed Hospital.

### RECEIVES AWARD

Brig. General Elmer W. Young, Chief of the Army Veterinary Corps, received the 1955 Distinguished Service Award in Veterinary Medicine from the Kansas State College School of Veterinary Medicine, Manhattan, Kansas.

The award was made on June 2 at the 50th anniversary ceremonies of the school and the dedication of its new Dykstra Veterinary Hospital.

General Young graduated from the university in 1925, and entered the Army within a few months after graduation. He has served in the Army continuously since, becoming chief of the Veterinary Corps last year.

### GENERAL DECOURSEY RECEIVES HONOR

Brig. General Elbert DeCoursey, Director

of the Armed Forces Institute of Pathology, had the honorary degree of Doctor of Science conferred upon him by the University of Kentucky at the 1955 commencement exercises.

General DeCoursey is a native of Kentucky and received his A.B. degree from the University of Kentucky in 1924. He received his medical degree from Johns Hopkins University in 1928, and then entered the Army Medical Service in which he has distinguished himself in the field of pathology. He was a member of the Joint Committee for the Study of the Effects of the Atomic Bomb in Japan in 1945, and was the Director of the Army Group in Nagasaki.

#### COLONEL BERNIER HONORED

Colonel Joseph L. Bernier, DC, Chief of Oral Pathology Branch of the Armed Forces Institute of Pathology, received the Tufts University Award for Leadership in Oral Pathology for 1955.

In February of this year he received the John R. Callahan Award for 1955 from Ohio State University.

Colonel Bernier is also a Professor of Oral Pathology at the Georgetown University School of Dentistry. He was elected a Fellow in Dental Surgery of the Royal College of Surgeons of England for his work on carcinoma of the lip. In 1951 he received the Louis Livingston Seaman Prize awarded by the Association of Military Surgeons of the United States for his studies in the field of carcinoma of the lip.

#### COLONEL BRYANT AWARDED DEGREE

Colonel Ruby F. Bryant, Chief of the Army Nurse Corps, was awarded an honorary degree of Doctor of Laws at the 1955 commencement exercises of the Medical College of Virginia, Richmond. Colonel Bryant, a native of Virginia, is a graduate of the Virginia School of Nursing.

#### COLONEL MAUPIN AT WALTER REED

Col. Clinton S. Maupin has been assigned to Walter Reed Army Medical Center,

Washington, D.C., as Director of the Division of Physiology and Pharmacology at the Army Medical Service Graduate School.

For the past three years he has been Staff Surgeon, Field Command, Armed Forces Special Weapons Project at Sandia Base, N.M. One of his previous assignments was Assistant Chief of the Environmental Health Laboratory at Army Chemical Center, Md. During World War II, he was a prisoner of the Japanese for three years.

#### RESERVE MEDICAL UNITS TO WRAMC

During July and August six U. S. Army Reserve Units will undergo on-the-job training at Walter Reed Army Medical Center. The first group, which is composed of three hospital units from Philadelphia and one from Pittsburgh will arrive at the Center on July 16 for their two-week training period. The second group which comprises two hospital units from Philadelphia will arrive July 31. All personnel will be integrated into normal hospital activities.

#### HOSPITAL ADMINISTRATION COURSE AT BAMC

The hospital administration course at the Medical Field Service School, Brooke Army Medical Center recently included a two weeks visit to selected civilian and military hospitals in Texas for the forty-eight officer students enrolled in the course. This contact with other hospitals has proved to be very valuable for the students who study such problems as personnel, work methods, and expenditures during the visit.

The Medical Field Service School's hospital administration course is affiliated with the Baylor University graduate school, through which students meeting the university's requirements may receive the master's degree in hospital administration. The Director of the course is Colonel Frederick H. Gibbs who is also Director of the School's Department of Administration.

Those who received the master's degree this year are: Lt. Col. Jeremiah Dailey, MSC, USA; Lt. Col. John R. Kelly, USAF (MSC); Maj. Nathan R. Wisser, MSC,

USA; and Maj. Harold H. Cochran, MSC, USA.

#### NURSES RECEIVE DEGREES

Six Brooke Army Hospital Nurses recently received their Bachelor of Science degrees in nursing at Incarnate Word College in San Antonio, Texas. They are: Majors Philomena Pagano, Beatrice Chambers and Rita Rourke, Captain Lacadia Clarke and First Lieutenants Mary Campbell and Jane Bess.

In addition to those named a number of other nurses have been studying at the College the past year.

#### COMMENDATION RIBBON AWARDED

First Lieutenant Eunice M. LeBlanc, ANC, Brooke Army Hospital, was recently awarded the Commendation Ribbon with Medal Pendant for her outstanding service in the pediatric and contagious wards of the 8168th Army Hospital in Japan during 1952 to 1954. The presentation was made by Brig. General Stuart G. Smith, the hospital commander.

#### DENTAL TRAINING PROGRAMS

The Army's dental training program was a matter of study and discussion at a recent conference in the Office of the Surgeon General. Dental representatives of the Medical Field Service School, the Army Medical Service Graduate School, and the Education and Training Division, Office of the Surgeon General, with Major General Oscar P. Snyder, Chief of the Dental Corps, presiding, were present at the conference.

#### DENTAL RESERVE INSTRUCTION

A new field regulation permits dentists who are reserve officers in the Army, and, who live in rural or isolated areas, to form their own classes in military medicine. Retirement points are given for participation in such training programs. Army commanders are urged by the regulation to organize training units in their areas when five or more re-

servists are available for specialized study.

Instructional material will be supplied by the Army Medical Service Graduate School.

#### PSYCHOLOGISTS GET ELECTRONIC APPARATUS

The Psychology Department of the Army Medical Research Laboratory at Fort Knox, Kentucky, will have an elaborate electronic pursuit apparatus installed as part of its testing equipment.

This new device will be used to conduct basic research on certain human factors in the handling of military equipment and carrying out of certain tasks (such as guiding vehicles and aiming weapons). The device is known as the "electronic pursuit apparatus," and was designed and assembled by the Battelle Institute, Columbus, Ohio, for the Army Medical Research Laboratory.

With this experimental computer, psychologists may simulate many target patterns, both static and dynamic, on a large oscilloscope. The path of the target, a bright solitary dot crossing the face of the 21-inch tube, may be varied considerably. The speed of the movement of the dot may, likewise, be varied from a point where it is relatively simple for the man to "track" a target to a point where it is impossible for him to follow the target. A paper-tape recording device in the unit will provide a graphic record of the performance of each man tested.

#### PRESENTS PAPER

Colonel Roland I. Pritikin, MC, USAR, presented a very interesting paper before the American Association of the History of Medicine at Detroit, Michigan recently. The paper, *History and Future of Salvaging Eye Defect Recruits*, has a particular interest to military surgeons in view of its scope.

#### RETIRED

Colonel Clarence H. Walsh, MSC, who was chief of the Extension courses branch of the Medical Field Service School, Fort Sam Houston, Texas, retired recently after a 33 year Army career. He will make his home at 63 Clarney St., Pawtucket, R.I.

**FELLOW—AMERICAN COLLEGE OF CARDIOLOGY**

Dr. David B. Dill, Scientific Director of the Chemical Corps Medical Laboratories, Army Chemical Center, Maryland, has been elected an honorary Fellow of the American College of Cardiology. This honor is the highest which can be bestowed by the College.

Since 1949, Dr. Dill has been visiting lecturer on Physiology at Harvard College and is well known for his work with the Fatigue Laboratory of that College and for his publications on the physicochemical properties of blood and the physiology of muscular exercise.

**STATEMENT OF RETIREMENT POINTS, USAR PERSONNEL**

Each reservist in an active status of the Army Reserve who is credited with 16 or more retirement points credit (including points credited for membership in an active status), will upon completion of his retirement year be furnished by the Army machine records unit an annual statement on DA Form 1383 of points earned for retirement and retention in an active status in the Army Reserve, or a statement of his termination of active status in the Army Reserve with resulting ineligibility to earn further points. Recent publication of AR 140-185 gives further details in regard to the retirement year, points required and responsibility for recording.

**Navy**

*Surgeon General*—REAR ADM. BARTHOLOMEW W. HOGAN

*Deputy Surg. Gen.*—REAR ADM. BRUCE E. BRADLEY

**SYMPORIUM**

A medical and dental symposium was held at the National Naval Medical Center, Bethesda, Maryland, June 1-3.

Dr. Frank B. Berry, Assistant Secretary of Defense (Health and Medical) discussed "The Armed Forces Medical Program."

Rear Admiral Bartholomew W. Hogan, the Surgeon General, addressed the group which consisted of fleet, force, district and hospital commanders, both medical and dental.

**MEDICAL FILMS TO FCDA**

The Navy has released seven medical training films to the Federal Civil Defense Administration for use in their civil defense casualty care program. The films are: "Sucking Wounds of the Chest," MN-7477; "Penetrating Wounds of the Abdomen," MN-7470; "Cricothyroidotomy," MN-7469; "Medical Laboratory Techniques, Serological Techniques, and Venipuncture," MN-9375c; "Use of Whole Blood, Plasma, and Serum Albumin," MN-7335; "Taking a Blood Pressure," MN-1511g; and "Artificial Respiration. The Back Pressure-Arm-lift Method," MN-7484.

**Air Force**

*Surgeon General*—MAJ. GEN. DAN C. OGLE  
*Deputy Surg. Gen.*—MAJ. GEN. W. H. POWELL, JR.

**DOCTOR OF SCIENCE DEGREE AWARDED**

Brig. General Otis O. Benson, Jr., USAF (MC), received the honorary degree of Doctor of Science from Montana State University at the June commencement exercises.

General Benson graduated from that University in 1924; obtained a Master of Science degree from the University of Iowa in 1925, and in 1930 received his medical degree from the University of Chicago. He is now Director of the Directorate of Medical Staffing and Education in the Office of the Surgeon General, Air Force.

**COURSE IN AVIATION MEDICINE**

At the School of Aviation Medicine, Randolph Air Force Base, Randolph Field, Texas there are a number of students studying basic aeromedical procedures.

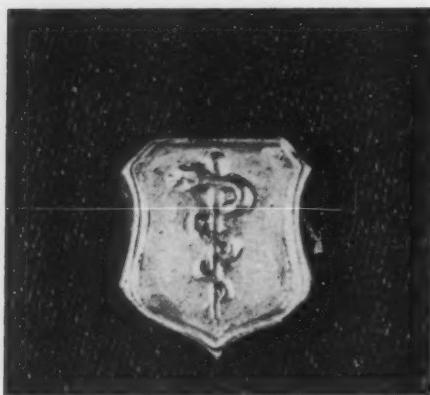
Colonel Max B. McQueen, a former public health officer in Idaho and a former

Army Medical Corps officer, is one of those persons.

Lieutenant John G. Nork, a football star, completed his medical studies at Columbia University two years ago.

Six of the students are Army medical officers who are learning Air Force aeromedical procedures in order to care for Army flyers.

Foreign officers among the students are: Air Vice Commodore Soehardi Hardjoloe-kito, Surgeon General of the Indonesian Air Force; Lt. Col. Lee Bong Kyun, Major Choi Won Rho and Lt. Hong Sung Bong of Korea; Major G. A. Malik of Pakistan; Major Federico L. Cafe, Chile; Lt. Julio C. Hernando R., Dominican Republic; Captain Anders W. Munthe-Kaas, Norway; Captains Michel Granjon and Jacques Sept-jian of France; and Lts. Jose Guerreiro Gois and Antonio Correia Anacleto of Portugal.



AIR FORCE PHYSICIANS AND DENTISTS GET INSIGNIA

Identification of doctors and dentists of the Air Force will be possible now through the new insignia which will be a badge worn above the left breast pocket. This badge, made of silver, will be a caduceus as shown here. Dentists will have a "D" superimposed. Flight surgeons will continue to wear their wing insignia. Thus the identification of the physicians and dentists of the

Air Force is now possible for all; there will be no reason for not saying "doctor" now. Incidentally that is the preferred term.

#### **SENIOR FLIGHT SURGEONS REVIEW COURSE**

Fourteen senior Air Force flight surgeons recently completed a month-long review course at the Air Force School of Aviation Medicine, Randolph Field, Texas. They are: Colonels E. G. Cada, H. G. Wallace, C. K. Morris and H. E. Sanders; Lt. Colonels J. A. Dillon, Jr., D. M. Kennett, J. G. Langford, J. G. Esprey, H. R. Lawrence, C. H. Talbott, and J. A. Booth; Majors C. C. Dugan, L. S. Greider, and S. B. Kern.

#### **POLIO MERCY FLIGHTS**

The "flying lung" which was designed at the School of Aviation Medicine, Randolph Air Force Base, Texas, was recently used to evacuate polio cases from Beirut, Lebanon and the Philippines.

This lung, made of aluminum, weighs one-tenth as much as the type used in hospitals. It is valuable in air evacuation, not only from the standpoint of its light weight, but from the fact that it will operate on the aircraft electrical systems, standard house current, batteries, or by hand bellows. Furthermore, it can be carried aboard a plane or ambulance like a stretcher.

### **Public Health Service**

*Surgeon General*—LEONARD A. SCHEELE, M.D.

*Deputy Surg. Gen.*—W. PALMER DEERING, M.D.

#### **DEPUTY CHIEF, DIVISION OF PERSONNEL**

Dr. Murray A. Diamond, has been appointed as Deputy Chief of the Division of Personnel. He will also serve as Assistant Chief for Operations.

He was formerly Chief of the Medicine and Surgery Branch Division of Hospitals. In his new position he will assist Mr. Paul M. Camp, Chief, Division of Personnel.

**APPOINTMENT**

Dr. Robert H. Flinn of the Public Health Service has been appointed as chief of the Division of Health, Bureau of Mines. The appointment is for two years.

Dr. Flinn is a graduate of Indiana University School of Medicine (1930). He has conducted studies in lead poisoning, anthraco-silicosis, and chronic mercurialism which will be of particular value in his new position.

**ASSIGNED TO WHO**

Dr. John W. Knutson, Chief Dental Officer of the Public Health Service, has been assigned to the World Health Organization, Geneva, Switzerland, for a six-month period, to organize a dental program.

Dr. Knutson has been active in the Federation Dentaire Internationale, and is currently vice-president of its Public Dental Health Service Commission. He is a graduate of the University of Minnesota School of Dentistry. In 1931 he entered the Public Health Service as a dental intern, and since then has held clinical, research, and administrative positions.

**AIR POLLUTION AUTHORITY ASSIGNED**

Louis C. McCabe, a national known air pollution authority, has been called to active duty as a commissioned officer of the Public Health Service. He will serve as Staff Advisor to Assistant Surgeon General Mark D. Hollis, Chief Sanitary Engineer of the Service and Chief of the Division of Sanitary Engineering Services. He will be stationed in Washington, D.C.

**LIVER MICROSOMES**

Tiny chemical laboratories, called liver microsomes, designed to counteract drugs and "foreign" compounds have been found to exist in the liver cells. This discovery is the result of research at the National Heart Institute of the National Institutes of Health, Bethesda, Maryland.

A new compound, SKF 525-A, which is said to lack any activity of its own other

than to block the action of the liver microsomes, was found to prolong the action of other drugs in the body.

Liver microsomes, however, will not work to break down drugs without help. Oxygen and reduced TPN (triphosphopyridine nucleotide), an "enzyme helper" present in various kinds of chemical systems in nature, are also necessary common denominators. With the use of all three, microsomes, oxygen, and reduced TPN, many drugs are now being made to undergo in the test tube the same kind of metabolic disintegration as they would undergo naturally in the body.

It has been suggested that the microsomal enzyme system developed in the liver of ancestral species as a means of disposing of useless or harmful substances taken into the body with food. Hundreds of compounds of no value to the body are swallowed with food and absorbed into the blood and many more are made by the bacteria of the digestive tract. A separate mechanism, such as that of the liver microsomes, which functions to rid the body of such useless accumulations is of great survival value.

**CANCER SERVICES DIRECTORY**

A new directory, *Cancer Services and Facilities in the United States, 1954*, has been compiled by the National Cancer Institute, and is available for purchase from the Superintendent of Documents, Government Printing Office, Washington 25, D.C. for 45 cents a copy.

The directory gives the names and locations of cancer hospitals and clinics, and laboratories offering tissue diagnostic and cytodiagnostic services.

**Veterans Administration**

*Chief Medical Director*—WILLIAM S. MIDDLETON, M.D.

*Deputy Chief Med. Dir.*—R. A. WOLFORD, M.D.

**NEW PSYCHIATRY CHIEF**

Dr. Jesse F. Casey has become the Direc-

tor of Psychiatry and Neurology in the Department of Medicine and Surgery. He succeeded Dr. Harvey T. Tomkins who resigned to become the Director of the New Reiss Mental Health Pavilion at St. Vincent's Hospital, New York City.

Dr. Casey is a native of Goldsboro, N.C. He received his medical degree from the George Washington University School of Medicine in 1931 and took his internship and residency training in psychiatry at St. Elizabeths Hospital in Washington, D.C.

During World War II he served for three years in the European Theater and participated in the Battle of the Bulge. He was separated from the service with the rank of lieutenant colonel.

In his new position Dr. Casey will have supervisory responsibility for the care and treatment of the mentally ill veteran patients who occupy one-half of all beds in the 173 Veteran Administration hospitals, and the thousands of veterans treated in the VA mental hygiene clinics.

#### ASSIGNMENT

Charles A. Tosch, Jr., assistant manager of the Veterans Administration Center at Kecoughtan, Virginia, has been appointed manager of the VA Center at Bonham, Texas. He served with the Air Force during World War II, and was separated with the rank of lieutenant colonel.

#### VETERANS READJUSTMENT

Recently the Veterans Administration completed a study to determine what readjustment to gainful life through vocational training has been made by the veterans that were treated for mental and nervous illnesses.

The study disclosed that 93 out of every 100 of these rehabilitated veterans are holding jobs, and nearly all of them like the kind of work they are doing. Of the employed veterans 84 out of 100 are using the skills that they learned during their training.

The average wage earned is about the same

as for other classes of veterans.

It is interesting to note that 7 out of 10 were between 20 and 30 years of age.

#### VETERAN POPULATION

The veteran population is now estimated at 21,695,000 as of April 1955. The daily average patient load in hospitals, both VA and non-VA is over 111,000.

#### DEADLINE FOR KOREAN GI BILL

Under the law, veterans actually *must start* their GI courses within three years from the date of their separation from the Armed Forces, in order to continue afterwards.

Before the starting deadline, there is no requirement for continuous training. After that date, there is a requirement—training must be continuous except for the up-to-12 month suspensions that are permitted.

Before the deadline, the veteran-trainee has the right to make one change in his course. After the deadline he no longer has the right to make a change, unless, of course, vocational counseling discloses that he would make a better go of it in a different course.

#### Miscellaneous

##### DR. LOYAL DAVIS HONORED

The Royal College of Surgeons of England awarded an honorary fellowship to Dr. Loyal Davis, chairman of the department of surgery, Northwestern University Medical School.

Dr. Davis is internationally known for his work in surgery of the nervous system. He served as a colonel in the Army Medical Corps and was consultant on neurological surgery in the European Theater of Operations.

##### HEADS MEDICAL DEPARTMENT

Dr. E. J. Foley has been appointed as head of the medical department of Winthrop-Stearns, Inc., New York. He has been associated with that company for 22 years. During World War II Dr. Foley served

in the Army Medical Corps in the United States, North Africa, and Italy. Upon release from the service in 1946 with the rank of major he resumed his association with Winthrop-Stearns.

#### MEETING OF FHI ALUMNI ASSOCIATION

The Federal Hospital Institute Alumni Association will hold its Annual Breakfast on September 20 in the Belvedere Room of the Traymore Hotel in Atlantic City.

Graduates of the Institute for Federal Hospital Administrators are urged to attend. The speaker will be Dr. William S. Middleton, Chief Medical Director of the Veterans Administration.

#### SIXTH INTERNATIONAL CONGRESS OF OTOLARYNGOLOGY

The Sixth International Congress of Otolaryngology will take place in Washington, D.C., from Sunday, May 5, through Friday, May 10, 1957, under the presidency of Arthur W. Proetz, M.D.

The selected subjects for the Plenary (Combined) Sessions to be held Monday, Wednesday and Friday mornings will be: (1) Chronic Suppuration of the Temporal Bone, (2) Collagen Disorders of the Respiratory Tract, (3) Papilloma of the Larynx. Outstanding internationally recognized authorities will open the discussion of each of these subjects.

Two types of communications are invited: (1) Contributions to the discussions of the selected subjects, limited to 5 minutes; (2) Original papers, limited to 15 minutes (These should be in one of the four official languages: English, French, German, Spanish).

For further information please address the General Secretary, Paul H. Holinger, M.D., 700 N. Michigan Ave., Chicago 11, Ill.

#### ANNUAL MEDICAL JOURNALISM MEETING

The VI Medical Journalism Meeting, sponsored by the World Medical Association in connection with its 9th General Assembly

in Vienna, Austria, September 20-26, 1955, will be held on September 23rd. The problems of Teutonic medical publications will be the topic of the day. Professor Dr. Artz will preside.

#### NEW SOCIETY FOR MED. HISTORY

At Boston University School of Medicine a new society was recently organized for medical historical studies. It is named after Benjamin Waterhouse (1754-1846) early colonial physician, who was the founder of Harvard University Medical School and the man who convinced the New Englanders of the virtues of vaccination against smallpox. Meetings will be held monthly. The secretary of the society is Dr. David McL. Greeley, 818 Harrison Avenue, Boston 18, Mass.

#### CONFERENCE OF FEDERAL SANITARY ENGINEERS

The Conference of Federal Sanitary Engineers was recently formed to serve as a means of bringing together engineers engaged in the practice of Sanitary Engineering (including Industrial Hygiene) in the Federal Government.

Membership in the Conference is open to any sanitary engineer (as defined by the National Research Council) who is on active duty as a commissioned officer of the Army, Navy, Air Force, or Public Health Service; or who is a civilian employee of any department or agency of the U. S. Government. Inactive duty reserve officers, and former employees are eligible for Associate Memberships, and retired personnel are eligible for Honorary Membership. Dues for Members are two dollars a year, and for associates and honorary members one dollar.

Information and membership applications may be obtained from the Secretary of the Conference, Lt. Col. Alving Meyer, 1701 S. 78th St., Omaha 6, Nebraska.

#### CANCER CHEMOTHERAPY

The Cancer Chemotherapy National Committee has recently been organized for cooperative research and development to find

and produce effective drugs for the treatment of cancer.

There are a number of sponsoring agencies with a small full time staff provided. The staff will be headed by Dr. K. M. Endicott, Executive Secretary, who is located at the Service Center of the Committee at Bethesda, Maryland.

#### DEADLINE FOR CLAIMS

August 21, 1955 is the deadline for filing claims for prisoner of war benefits for those Americans taken captive while serving in the Armed Forces in World War II. Claims for funds deposited by military personnel in banks in the Philippines and impounded by the Japanese can also be filed. It is imperative that the filing of all claims be made at once because of the short time remaining.

Inquiries should be sent to the Foreign Claims Settlement Commission, Washington 25, D.C.

#### PHILIPPINE REPUBLIC VETERANS HOSPITAL

The new \$10,000,000 veterans hospital in Manila will be administered along the lines of the VA hospitals in the United States. It will be opened the latter part of this year. The hospital consists of 12 buildings, will provide beds for 336 tuberculous patients, 336 general medical and surgical patients, and 50 mental patients.

Funds for this hospital were provided by the United States. The hospital will be for those veterans of the Philippines who fought in the Philippine Army and the guerilla service during World War II.

Dr. Roman Tolentino Salacup, former surgeon general of the Philippine Army, will be director of the hospital. The chief nurse will be Lucille Nenita Paradela.

#### EMPLOYMENT OF THE DISABLED

It has been shown that the suggestions and policies of the President's Committee on Employment of the Physically Handicapped are sound and profitable. Reports from government agencies indicate that for the most part disabled persons make good employees.

Not everyone, even the abled bodied, can be expected to do all types of work. Everyone has his limitations be they physical or mental. Where there is a willingness to work employment of disabled should be considered to a greater extent than at present. A careful physical and mental check should be made to determine the capabilities of these persons, and then with reasonable consideration and patience, but not a display of emotionalism, the person should be given his opportunity to do a job. The self-respect of the individual is thus maintained and another unit of manpower gained.

#### NEW ARMY UNIFORM

The official date set for the new Army uniform is September 1, 1956. This date has long been waited for in view of news released some time ago that the green uniform would be adopted. The color of the uniform will be slate green; shoes, socks, and tie will be black, while the shirt will be of a light tan.

A "wear-out" period is always granted for old type uniforms. However, those contemplating the purchase of new uniforms should consider the delay of that purchase, if possible, until the new material is available.

#### WORLD WAR I PENSION BILL INTRODUCED

R.R. 6153 was introduced in Congress to grant a pension of \$100 per month to all honorably discharged veterans of World War I who served in the Armed Forces of the United States and who are sixty years of age.

The Veterans Administration would have the responsibility for administering the Act.

#### SMOKE SCREENING AGAINST A-BOMB

Smog, an annoyance to industrial cities, particularly to Los Angeles, may have some benefits. Major General William M. Creasy, Chief of the Chemical Service, recently stated that a smoke cloud can reduce considerably the heat from an atomic detonation.

An experiment showed that the smoke screen can be produced over a 40-square mile area up to a height of 1,000 to 2,000 feet with a few hundred gallons of oil.

#### BODY TEMPERATURE STUDIES

An electronic "brain" to study the body temperature regulating system is being used at the University of California.

*Mechanical Engineering*, the official publication of the American Society of Mechanical Engineers, in its June issue, carries an article on this subject. Author of the article is C. L. Taylor, Professor of Engineering, Department of Engineering at the University.

#### LUNG CANCER RESEARCH & TOBACCO

Among the problems of the lung-cancer research launched by the Tobacco Industry of America the most urgent ones are related to the standardization of methods and materials. Animal experimentation is only reliable and successful when it is carried out on animals of known and unvarying genetic characteristics. Hence, special efforts are taken by the Industry's Research Committee to provide the investigators with standard strains of mice.

Uniformity is also needed in the operation of smoking machines, the rate of consuming a cigarette, the type and energy of suction applied for burning up the tobacco. It is also essential to have an agreement on how to extract and to store the tarry products of smoking for future study.

Now there seems to be a discrepancy between the laboratory evidence and the statistical support of the assertion that tobacco smoke is responsible for lung cancer. It is apparent that much further study is needed to clarify this perplexing problem.

#### PETHIDINE ADDICTION IN THE U.S.

The fifth report of the WHO Expert Committee on Drugs Liable to Produce Addiction contains a special Annex which calls particular attention to the spreading habit of addiction to pethidine hydrochloride in the United States. For example, in 1946, the

U.S., 3,497 kilograms of pethidine were produced and 2,866 kilograms consumed, while in 1952 the production increased to 7,115 Kg and the consumption to 8,027 Kg. The number of pethidine addicts in the Public Health Service Hospital in Lexington, Ky., has increased considerably. Of the 457 pethidine addicts admitted to the hospital between July 1950 and September 1953, 76 were physicians, 79 were nurses, 2 were dentists, and 29 were from ancillary professions, a total of 186, or 41%. The increasing tendency to pethidine addiction reflects the wrong attitude of physicians towards the drug based on the widespread but erroneous belief that pethidine is less dangerous than morphine with respect to addiction liability.

#### ADVICE ON FINANCIAL MATTERS

Two paper back books filled with good sound advice for military personnel of all branches have recently been received in the editor's office. The books are the work of Associates in the Social Sciences at the U.S. Military Academy, West Point, New York.

*Principles of Personal Finance for Service Personnel* deals with the rights, benefits, and obligations of service personnel. The procedure by which the person can obtain those rights and benefits, as well as carry out the obligations is explained. The book fills a gap which often exists between the academic realm and the performance field in the lives of service people.

*Principles of Insurance and Related Government Benefits for Service Personnel* is in its fifth edition. In this book one learns of all types of insurance. The survivor benefit plan is explained. A program for life insurance is set forth. Household and auto insurance is discussed.

Each of these books sells for \$1.50 and can be obtained from the Military Service Publishing Co., Harrisburg, Pa.

#### SPORTSMAN'S CLUB-RESORT

A *Sportsmen Officers Club-Resort in Mexico* is being organized by a small group of active and retired Air Force officers. The

resort is being built around the vacated living facilities of the Morrison-Knudsen Construction Company's dam building site in Sonora, Mexico, near the Gulf of California approximately 400 miles south of Tucson, Arizona. Location of the site offers fabulous deep sea and big game fishing, fresh water lake fishing, boating, sailing, swimming and excellent wild turkey, wild pig, deer, duck and goose, wild pigeon, dove, quail and squirrel hunting. Plan is to provide a golf course, tennis courts, archery and small arms ranges, riding stables, equestrian and hiking trails. The site has its own private airfield and entrance road. It is a short distance from the recently completed international highway leading from Tucson, Arizona to Mexico City. Two airlines converge on the nearby town of Navajo, one from San Diego area, one from Tucson area. Moderately priced memberships are being made available to active and retired military personnel and certain other selected categories of sportsmen

per se members of the American Medical Association and the Air Line Pilots Association of the U.S.

Detailed information and pictures will be provided free of charge to those interested. Contact Colonel J. B. Morehead, BD-939, Pentagon, Washington, D.C.

## Honor Roll

The following sponsored one or more applications for membership in the Association during the month of May, 1955:

Col. Bernard Aabel, MSC, U.S. Army  
Med. Dir. S. P. Cooper, U.S.P.H.S.  
Lt. Col. Milton C. Devolites, M.S.C., U.S.  
Army  
Lt. Col. Charles V. L. Elia, V. C., U.S.  
Army  
Col. Amos R. Koontz, M.C., Md. N.G.  
Dr. G. M. Kunkel  
Col. Louis F. Saylor, M.C., U.S. Army  
Dr. N. H. Wallace



## DRAFT EXTENSION

The regular draft law has been extended for four years.

The doctor draft has been extended for a period of two years with the equalization pay provision of \$100 per month.

## O B I T U A R I E S

### Col. Henry E. Hess, U. S. Army, Ret.

Henry E. Hess, Colonel U.S. Army, retired, died April 26 at Lansdale, Pa.

Colonel Hess was crossing the street with his five-year old daughter when he was struck by an automobile. His daughter did not suffer any injury.

Colonel Hess was a native of Pennsylvania.

He was a graduate of the University of Pennsylvania School of Veterinary Medicine. In 1917 he entered the Army, and served until retired in April 1951. During World War II he served in the Pacific area. One of his last assignments was as chief of the veterinary section of the Eighth Army Surgeon's Office. He had been making his home in North Wales, Pa.

Interment was in the Philadelphia National Cemetery.

### Med. Dir. Walter G. Nelson, U.S.P.H.S.

Walter G. Nelson, Medical Director, United States Public Health Service died in Balboa Heights, Canal Zone on May 18, at the age of 59 years.

He was a native of the District of Columbia, and received his medical degree from Georgetown University School of Medicine in 1918.

Dr. Nelson spent 35 years with the Public Health Service, a considerable portion of the service being in Europe. From 1937 to the beginning of World War II he was in Moscow.

He was in Berlin during the Russian blockade.

Interment was at Arlington National Cemetery.

### CDR Anna G. Keating, U. S. Navy, Ret.

Anna Gertrude Keating, Commander, Nurse Corps, U.S. Navy, retired, died in the Naval Hospital, Philadelphia, May 19.

Commander Keating was a native of Ireland. She completed her nursing training at the Philadelphia General Hospital Training School for Nurses in 1914. She was appointed a Reserve Nurse in the Navy in 1917 and a Navy Nurse in 1925. In 1944 she was appointed an Assistant Superintendent, Navy Nurse Corps.

She is survived by her sister, Mrs. Nellie Lombard, 1979 74th Avenue, Philadelphia, Pa.

### Lieut. Daniel A. Di Pizzo, U. S. Navy, Res.

Daniel Angelo Di Pizzo, Lieutenant, junior grade, Dental Corps, U.S. Naval Reserve, active, died at his home in Elizabeth, New Jersey, May 22.

Lieutenant Di Pizzo was a native of New Jersey. He received the degree of Doctor of Dental Surgery in 1954 from St. Louis University School of Dentistry, after which he was commissioned in the Navy.

He is survived by his father, Angelo Di Pizzo, 209 Centre Street, Elizabeth, New Jersey.

### Capt. Nathan L. Robbin, U. S. Navy

Nathan Levy Robbin, Medical Corps, U.S. Navy, active, died May 24, in the Naval Hospital, Oakland, California at the age of 59 years.

Captain Robbin was born in Russia, and was naturalized in 1919. He received his medical degree from the University of Illinois College of Medicine in 1930, and from 1931-1942 was engaged in private practice in Chicago. In April 1942 he entered on active duty, and except for a few months in 1946 was on an active duty status. He was a specialist in ophthalmology and was on duty at the Naval Dispensary, San Francisco, California for his last station.

He is survived by his wife, Mrs. Vivian M. Robbin, 714 Alester, Palo Alto, California.

### **Capt. Abraham H. Allen, U. S. Navy, Ret.**

Abraham Herbert Allen, Captain, U.S. Navy, retired, died at his home in Haverford, Pennsylvania, on May 25 at the age of 74 years.

Captain Allen was a native of Pennsylvania. He received his medical degree in 1903 from the Medico-Chirurgical College, Philadelphia. He entered the Navy in 1906 and was retired on January 1, 1943.

He is survived by his wife, Mrs. Florence TenBrook Allen, Buck Lane, Haverford, Pa.; a son and a daughter.

Interment was at Arlington National Cemetery.



It is estimated that in 1965 there will be in the United States a 500 billion dollar economy; that there will be 190 million population; that 137 million will be over 14 years of age; that there will be 56 million households with an average of 3.4 per household; and that there will be a civilian labor force of 76 million.

These figures create problems in providing facilities for education, medical care, care of the aged, and job employment for all.

## BOOK REVIEWS

**PSYCHOSURGERY AND THE SELF.** By Mary Frances Robinson, Ph.D., and Walter Freeman, M.D. 118 pages. Grune & Stratton, New York. 1954. Price \$3.00.

This small volume tries to answer the questions: How can a few minutes of surgery relieve an individual of a mental disorder of many years' duration that has proved obdurate to all other treatment? What changes can suddenly be produced in a person that will release him from his formerly unbearable conflict? Dr. Walter Freeman, now retired to a small California town, contributes the second chapter, as the pioneer who introduced "psychosurgery" to the American public in the early thirties. He describes his technique in six pages. But a psychologist, Mary Frances Robinson of St. Joseph, Missouri, fills the rest of the hundred fourteen pages with her observations, psychometric experiments, and conclusions.

From the literature it appears that psychosurgery does not affect intelligence significantly, as measured by available verbal tests, that it is probably productive of the concrete attitude, and that it affects adversely the maintenance of set, prolonged attention, and planning ability. Experimental literature further shows that it produces only minor changes in personality test results, except in anxiety questionnaires, sentence completion tests, and tests of neuroticism and introversion.

Changing the personality is the avowed purpose of psychosurgery, just as it is the purpose of all types of psychotherapy, but the dramatic speed with which the operative procedure succeeds in cases where all other therapy has failed highlights the changes. Without the long, painful process of developing insight in the patients, psychosurgery somehow relieves them of their sufferings and makes it possible for them to go back to their homes and to survive in the very environment in which their disorders developed. That changes have taken place in them is obvious; much less obvious is the exact nature of those changes.

The author concludes: "(a) Patients after psychosurgery no longer express grief or

embarrassment or remorse for the past or ambitions or fears for the future; they seem to live in the present. They are occupied with their own affairs but are not much concerned with themselves or other people as persons. (b) The most improved of the transorbital cases have lost the excrescences of self-continuity (as, for example, excessive remorse) but have retained an adequate and even highly elaborated self-concept. It thus appears that although self-continuity would seem to be essential for the development of a self-concept, once that development has occurred, psychosurgery can reduce the feeling of continuity without destroying the concept. (c) Patients suffering from intractable pain, who undergo psychosurgery, no longer look forward to continued suffering, and their anguish is relieved. This relief seems more plausibly related to reduced self-continuity than to a reduced concept of the self."

In terms of the present study, psychosurgery changes the structure of the self through reducing to a greater or lesser degree the complex integration of self-continuity that provided fertile ground for the development of the psychosis. It leaves many of the aspects of the personality unaltered, however, and if the reduction is not carried far enough, because of insufficient brain damage, and if the conditions under which the psychosis developed still obtain, or if other difficulties arise, the same symptoms will recur.

This book can be recommended as an introduction to this very controversial form of therapy, and is a very interesting presentation.

CODR. JAMES L. McCARTNEY,  
USNR, RET.

**CLINICAL NEUROSURGERY.** Proceedings of the Congress of Neurological Surgeons. Volume 1, 201 pages, illustrated. Williams and Wilkins Company, Baltimore, Maryland, 1955. Price \$8.00.

This 201 page volume records for the first time some of the proceedings of the Congress of Neurological Surgeons, starting with the 1954 meeting in New Orleans. It is labeled

Volume 1, indicating perhaps the intention of the Congress to produce a volume annually hereafter.

The first 103 pages are devoted to three papers by Sir Geoffrey Jefferson, the guest of honor at the meeting and to whom one would conclude the volume is dedicated. His papers are entitled "Changing Views on the Integration of the Brain," "Trigeminal Neurinomas," and "Compression of the Optic Pathways." There follows the literal transcription of three round-table discussions, "The Anatomy and Physiology of the Frontal Lobe," "Psychosurgery: Indications and Sequelæ," and "The Use of Fluids and Electrolytes in the Management of the Neurosurgical Patient." The panel discussions are certainly fundamental, useful and readable for any neurosurgeon. Sir Geoffrey's papers are written in a somewhat philosophical vein, even in the case reports, and are thoroughly enjoyable. Unfortunately there are several misspelled words scattered throughout the book.

COL. JOHN MARTIN, MC, USA

**MEDICAL TREATMENT OF MENTAL DISEASE: The Toxic and Organic Basis of Psychiatry.** By Daniel J. McCarthy, A.B., M.D., LL. D., Consulting Neurologist, Philadelphia General and Norristown State Hospitals; Professor of Medical Jurisprudence, University of Pennsylvania; and Kenneth M. Corrin, B.S., M.D., Neuropsychiatrist, Wilmington General Hospital, and Instructor in Psychiatry, Jefferson Medical College; with Sections by Eight Contributors. 653 pages. J. B. Lippincott Co., Philadelphia & Montreal, 1955. Price \$12.00.

Here is comprehensive psychiatry viewed in a strongly organicist light. Physical and chemical treatments are emphasized, and psychotherapies (except the formal analytic) are recommended.

Four pages give the neatest résumé of group therapy that this reviewer has seen. Medicolegal considerations, and sections on geriatrics, shock and surgical therapies, are excellent. Psychoanalytic theories are brushed off as "oriental," "illogical," "contrary to all biologic life."

These authorities claim that "the one etiologic factor almost universally present [in marked depressions] is extreme exhaustion and debility." Other writers have seen exhaustion as effect oftener than as cause. Neurasthenia is described as really asthenic

and not uncommon, instead of rare and sthenic. Schizophrenia is first discarded for a bad name, its syndromes being taken together with less serious adolescent disorders; farther on, it gets its desserts.

The authors demand agreement with every patient's desire to be "considered as an organic case." Elsewhere they underline "in the beginning of the treatment of the psychotic or the neurotic . . . [that he] be told . . . there is no evidence of organic disease."

No index of authors appears, and that of subjects omits a number mentioned in the text, like desoxycorticosterone, drive, Rauwolfia, responsibility.

For internists this is a valuable reference-and work-book. Some psychiatrists may shudder.

COL. JAMES H. HUDDLESON, USAR, RET.

**REPRODUCTIVE SYSTEM.** Volume two of the Ciba Collection of Medical Illustrations. Prepared by Frank H. Netter, M.D., edited by Ernst Oppenheimer, M.D., with a forward by John Rock, M.D., Clinical Professor of Gynecology, Howard Medical School. 233 plates, dealing with the reproductive system, contained in 270 pages. Commissioned and published by Ciba Pharmaceutical Products, Inc. Summit, New Jersey. Price \$13.00.

This book is the second of a series portraying the major anatomy and pathology of the human organism with separate volumes devoted to each system.

Dr. Netter's illustrations fill a definite need in supplementary standard reference works in the physician's library since visualization of a complete subject matter makes for easy mental assimilation. "The visual and verbal descriptions of pathological conditions, anatomy, and physiology are effective aids in acquiring knowledge that we need so badly," states John Rock, M.D. in his forward.

Drs. Samuel Vest and Ernst Oppenheimer, as well as many other outstanding collaborators on the subject, have ably assisted in producing this book.

Five sections of the book are devoted to the development, anatomy, and diseases of the male genital tract, while the remaining sections are concerned with the normal anatomy of the female genitalia, diseases of the vulva, vagina, uterus, Fallopian tubes, and ovaries, as well as pregnancy and its diseases.

A section on anatomy and pathology of the mammary glands and intersexes, is also included.

The superior excellence of the illustrative talents of Dr. Netter, as portrayed in this volume, are to be highly commended.

*Reproductive System* can be a valuable possession to any practicing physician.

COL. JOHN W. DARROUGH, MC, USAR

**PERIPHERAL VASCULAR DISEASES.** Second Edition. By Edgar V. Allen, B.S., M.A., M.D., M.S. in Medicine, F.A.C.P., Section of Medicine, Mayo Clinic; Professor of Medicine, Mayo Foundation, Graduate School, University of Minnesota; Nelson W. Barker, B.A., M.D., M.S. in Medicine, F.A.C.P., Section of Medicine, Mayo Clinic; Professor of Medicine, Mayo Foundation, Graduate School, University of Minnesota; and Edgar A. Hines, Jr., B.S., M.A., M.D., M.S. in Medicine, F.A.C.P., Section of Medicine, Mayo Clinic; Professor of Medicine, Mayo Foundation, Graduate School, University of Minnesota; with Associates in the Mayo Clinic and Mayo Foundation. Published by W. B. Saunders Company, Philadelphia. 1955. Price \$13.00.

This is the long awaited second edition of an outstanding textbook on peripheral vascular diseases. As in the earlier edition numerous authors contribute sections, providing personal descriptions of a wide range of diseases. The section on investigative methods has been reduced in length, reflecting in part the decline in popularity of venography as a diagnostic procedure. The section dealing with surgical considerations has been almost doubled in length to accommodate added discussions of coarctation of the aorta, techniques of sympathectomy, non-vascular operations for intermittent claudication, surgical treatment of varices, surgical treatment of aortic aneurysms, and surgical treatment of vascular injuries. These additions hold particular interest in the light of recent technical advances in the field of vascular surgery. The section on gross and microscopic anatomy of peripheral blood vessels has been deleted as a separate section, but this material is incorporated for the most part with accounts of specific vascular disorders.

The text is well written and lucid. Illustrations are generally improved over those of the first edition. The index has been lengthened to correct a previous deficiency in cross-referencing.

This book should be included in all medical libraries and should be owned by all physi-

cians who are interested in vascular disease.

MAJ. VERNON M. SMITH, MC, USA

**PREPAYMENT AND THE COMMUNITY.** Volume II of Report prepared by the Commission on Financing Hospital Care in the United States. Edited by Harry Becker. 356 pages. McGraw-Hill Book Company, New York. 1955. Price \$4.50.

While the first report of the Commission examined the principal factors affecting the costs of hospital care, this second report deals with the *voluntary prepayment* method by which hospitals and the public have been able to meet the increasing costs. This method is considered the most significant economic development in the history of American hospitals. Its expansion has been phenomenal. While four million people were covered by prepayment plans in 1938, there were 32 in 1946 and more than 91 in 1953; the Blue Cross alone covered 43 million persons. Underlying this expansion has been the public's great awareness of the unpredictability of illness and of the fact that costs often cannot be met from current income at the time of illness.

Although the need for security has been met through prepayment by more than 91 million people, there still remains a large portion of the population without protection. Approximately 50 million of the unprotected persons are in the labor force and able to work. Then there are 15 million more family dependents, retired aged persons, and those dependent on public aid or in institutions. A large number of persons cannot afford the cost of prepayment because they use their income for food, shelter, and clothing. These are the non-wage and low-income groups who are medical indigents and about whose hospital protection the Commission presents plans for their coverage in their third report (Volume III).

The effectiveness of voluntary prepayment, the Commission reports, is primarily determined by the benefits it offers. While insurance plans provide cash to the person with which to pay his hospital bills, most Blue Cross and other independent health insurance plans offer service benefits in terms of days of hospitalization, provisions for room and board, use of ancillary services, and for outpatient care. There is great variation in the plans as well as in the service benefits provided.

The Commission found that there is too wide a gap in benefit provisions under

voluntary prepayment even for those who can afford it. There is considerable disparity between the cost of services received and the amount of payment made by the prepayment agency. Benefit gaps exist because many new services are not covered and because there has been a sharp rise in hospital costs.

Whether or not individuals and families can afford prepayment depends in large part on the price in relation to the level of income they have and on the demands in their disposable earnings for other necessities of life. Reliable data on the point at which annual income has been a significant barrier to the purchase of prepaid hospitalization protection are not available.

The Commission states that families and individuals are becoming increasingly able to afford protection to cover the cost of their hospitalization. The evidence also supports the conclusion that existing gaps in benefit provisions could be closed and eligibility provisions liberalized without making the cost of protection prohibitive.

Persons with Blue Cross or insurance protection make greater use of hospital facilities. A study made in 1953 disclosed that rural farm population with prepaid protection had an admission rate of 170/1000 as compared to only 90/1000 for those without protection. In urban areas it was 120 vs. 90.

The Commission recommends the operation of outpatient clinic services and prepaid physician care as a means of reducing the number of admissions to hospitals. In this manner the cost of prepayment will also be reduced.

In discussing methods for assuring effective and economical use of prepayment funds the Commission indicates that prepayment has an impact both on admissions and costs. On one hand it removes restrictions to desired use of hospital services by the patient and on the other it removes restraint from hospital operating costs. Several ways are suggested by the Commission for achieving better use of prepayment funds including:

1. Reduction of inappropriate use of hospital services through overstay; admission for convenience or examination that could be done on outpatient basis; through faulty use of ancillary services; and through excessive use of drugs, laboratory and X-ray facilities.

2. Better indoctrination of physicians to schedule operations in advance; do diagno-

tic work-up on an ambulatory basis; avoid excessive use of facilities; and control the length of patient stay.

3. More efficient and economical methods of hospital organization and administration.

The Commission foresees that our rising standard of living will call for greater use of medical and hospital services. The importance of hospital care will grow with new medical advances, improved benefit provisions, and expansion of population coverage. This will be accompanied by mounting pressure for improved efficiency in providing services to bring the cost of care within the reach of more persons without the aid of public or private welfare funds. Accordingly, voluntary prepayment will have considerable room for expansion. Already it has reduced the number of non-pay and part-pay patients by raising to the status of paying patients many who could not otherwise afford to pay for care. It has created a new concern with the factors affecting the costs of care and with new methods for obtaining the largest quantity and highest quality of medical and hospital service at the lowest cost.

Lt. Col. MILTON C. DEVOLITES,  
MSC, USAF

CARE OF LABORATORY ANIMALS. By C. A. Slanetz, Ph.D. Publication Office, American Public Health Association, Inc. 1790 Broadway, New York, N.Y. 1954. Price \$0.75.

This brief handbook on laboratory animals presents very useful information on the care of all animals commonly utilized in various institutions for research purposes. Contents are presented in outline form and cover the various aspects of animal care including cage selection and capacity, bedding, water supply, food requirements, sanitation and optimum conditions of temperature and humidity. Brief sections on food selection and storage and control of the more common animal diseases are included. This simplified guide on animal care should serve to disseminate important basic principles in maintenance of animal colonies.

Lt. Col. WALTER LACASSE,  
USAF (MC)

PROGRESS IN ALLERGY—Vol. IV. Edited by Paul Kallos, Helsingborg, Sweden. 520 pages, 149 figures and 63 tables. Little, Brown and Company, Boston and Toronto. 1955. Price \$20.00.

This is the fourth progress volume in

this series published since 1939. The various articles emphasize recent experimental laboratory findings as well as cover some of their clinical applications. However, the book is essentially a review volume written for the laboratory worker in this field, the immunologist, the immunochemist, and only incidentally for the practicing physician. The nine contributors include outstanding workers in this country, Switzerland, and England.

The scholarly introductory chapter by the editor himself comprises an excellent summary of the articles which follow, and warrants careful reading by everyone interested in allergy. Dr. Bohrod discusses the pathology and histology of allergic lesions. He points out that allergic reactions do not have a characteristic appearance but typically show only inflammation. He emphasizes that all the lesions seen in allergy are also seen in non-allergic conditions. A detailed review of group sensitization to compounds of quinone structure and a discussion of delayed hypersensitivity are noteworthy for their authors' ability to make interesting these subjects usually reserved for the drier scientific symposia.

Three articles making up more than one-third of the book, are devoted to the adrenal steroids and the anterior pituitary gland. Together, these papers comprise an exhaustive review of our present knowledge. Recent laboratory observations on the mode of action of these most valuable therapeutic agents are discussed. Allergic diseases do not involve systemic adrenocortical insufficiency or dysfunction and the common denominator of the hormones' therapeutic action is the anti-inflammatory effect. That our understanding of this subject is far from complete and our present theories may prove to be incorrect is conceded. Scholarly articles on experimental asthma and respiratory allergy due to molds conclude the subjects covered. An extensive bibliography

following each paper increases greatly the value of the volume, which serves well its purpose of pointing out mile-stones reached in our scientific progress.

COL. WARREN H. DIESNER,  
MC, USA

**AMPUTATIONS.** By Leon Gillis, M.B.E., Consultant Orthopedic Surgeon to Queen Mary's Hospital, London. 423 pages, illustrated. Grune & Stratton, Inc., New York. 1955. Price \$12.75.

"Amputations" by Dr. Leon Gillis contains a considerable wealth of information on amputation problems. There is a rather interesting chapter with historical details of amputations. For a book exclusively on amputations I felt that there were certain areas inadequately treated. For instance, concerning amputations of the lower thigh and knee levels for occlusive vascular disease, he casually mentions the several tendoplasty amputations. The arguments for and against these certainly warrant further elucidation. In other parts of the book he goes into considerable detail, for instance concerning kineplastic amputations. There is considerable material on the various and bizarre problems. Apparently, therefore, the author calls largely upon his own experience for most of the material in the book. I felt that parts of the book were not organized well enough and that occasionally he failed to draw conclusions where he should have. Particularly in the chapters on occlusive vascular diseases he interjects matters to be considered but does not differentiate how he feels in their behalf. He refers to a survey by certain clinicians of a particular problem, but fails to tell of their results.

Despite the above, this book, especially when its companion book on prostheses is available, will constitute a valuable book for those dealing with amputation problems.

RAY BROWN, M.D., F.A.C.S.

## NEW BOOKS

- Angiographic Localization of Intracranial Masses*, by Arthur Ecker, M.D. and Paul A. Riemenschneider, M.D. Charles C Thomas, Springfield, Ill. Price \$13.50.
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- Cerebral Palsy, Methods of Evaluation and Treatment*, by Geo. G. Deaver, M.D. Rehabilitation Monograph IX. New York University, N.Y. Price \$1.00.
- Fundamental Considerations in Anesthesia*, 2nd ed., by Charles L. Burstein, The Macmillan Company, New York, N.Y. Price \$5.50.
- The Management of Obstetric Difficulties*, Paul Titus, Revised by J. Robert Willson, M.D., M.S., 5th ed. The C. V. Mosby Co., St. Louis, Mo. Price \$12.50.
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- An Atlas of Musculoskeletal Exposures*, by H. F. Moseley, M.A., DM. M. Ch. J. B. Lippincott Co., Philadelphia, Pa. Price \$22.50.
- Principles of Personal Finance for Service Personnel*, by Associates in the Social Sciences, U. S. Military Academy. The Military Service Publishing Co., Harrisburg, Pa. Price \$1.50.
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- Principles of Insurance and Related Government Benefits for Service Personnel*, by Assoc. in Social Sciences, U. S. Military Academy. The Military Service Publishing Co., Harrisburg, Pa. Price \$1.50.
- Essentials of Orthopaedics*, by Philip Wiles, M.S. (Lond) F.R.C.S. (Eng) Little, Brown & Co., Boston 6, Mass. Price \$10.00.
- Cornell Conferences on Therapy, Vol. VII*, managing editor Dr. Harry Gold. The Macmillan Co., New York, N.Y. Price \$4.50.
- Tea—A Symposium on the Pharmacology and the Physiologic and Psychologic Effects of Tea*. The Biological Sciences Foundation, Ltd., Washington, D.C. Price \$1.00.
- La Transfusion Intra-Arterielle*, by Louis Hollender and Andre Berner. Masson & Co., Paris, France. Price 1,200 fr.
- La Masse Sanguine et Sa Pathologie*, by P. Cazal. Masson & Co., Paris, France. Price: broche 1,800 fr; cartonne toile, 2,400 fr.

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